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Case No: A3/2013/1246

IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM THE HIGH COURT
QUEEN'S BENCH DIVISION
TECHNOLOGY & CONSTRUCTION COURT
MR JUSTICE STUART-SMITH
[2013] EWHC 967 (TCC)

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: Thursday 22nd May 2014

Before:

LORD JUSTICE LONGMORE
LORD JUSTICE PATTEN
and
LORD JUSTICE CHRISTOPHER CLARKE

- -

Between:

M T Højgaard A/S	**Claimant/ Respondent**
- and -	
(1) E.ON Climate and Renewables UK Robin Rigg East Ltd **(2) E.ON Climate and Renewables UK Robin Rigg West Ltd**	**Defendants/ Appellants**

(Transcript of the Handed Down Judgment of
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Official Shorthand Writers to the Court)

Adrian Williamson QC and Paul Buckingham (instructed by **Wragge & Co LLP**) for the **Appellants**
Stephen Dennison QC and Mark Chennells (instructed by **Fenwick Elliott LLP**) for the **Respondent**

Hearing date: 6th March 2014

Judgment

As Approved by the Court

LORD JUSTICE CHRISTOPHER CLARKE:

1. Robin Rigg is a wind farm in the Solway Firth. In December 2006 the Respondent, MT Højgaard A/S ("MTH") contracted with the Appellant, E.ON Climate and Renewables UK Robin Rigg East Limited and E.ON Climate and Renewables UK Robin Rigg West Limited ("E.ON") to design, manufacture, deliver, install and commission the foundations for 60 wind turbine generators ("WTGs") and 2 substations that would together constitute the foundations for this wind farm. The contract value was more than € 100 million. Of this about € 26 million related to installation.

2. Under the Contract MTH was to provide as part of the Works a jack-up barge called the "LISA" which was to be used for the installation of the monopiles and transition pieces. The LISA was not self-propelling, could not store all necessary plant on board, and required tugs and ancillary equipment to assist in operations. The LISA and what went with it was referred to in the contract documents as "foundation installation vessel spread".

3. In the event the LISA proved to be inadequate for the tasks which she was meant to carry out. As a result the Engineer under the Contract issued Variation Orders 5, 9 and 10 which required the substitution of a different vessel – the "Resolution" – to do most of the installation work which the LISA was to have done. MTH withdrew the LISA from the contract and installed all but 2 of the 62 foundations using the Resolution instead. The Resolution was a superior and more effective vessel. A curious feature of the case is that, although MTH had been responsible for hiring the LISA and providing it in order to carry out the Contract Works, E.ON hired the Resolution itself and provided it on a free-issue basis to MTH.

The dispute

4. The dispute is over what should be the financial consequences of the changed arrangements. The parties agree that the Contract Price must be varied to reflect the fact that the LISA and the rest of the foundation installation vessel spread have been omitted from the Contract; and that there should be some addition to the Contract Price to reflect the new work content attributable to MTH working with the Resolution. The major dispute arises because, in the judge's words:

> "*i) MTH says that what should be omitted is the component of the original Contract Price included for the provision of the LISA (making due allowance for the fact that she carried out 2 of the 62 foundations); but*
>
> *ii) E.ON contends that the deduction should be the product of applying a rate (or alternatively a cost) to the amount of time it alleges that the LISA would have taken to carry out the contract works if it had in fact done so.*
>
> *5 E.ON says that, because the LISA had proved inadequate, MTH would have taken a very long time to install all the foundations using her. Consequently, applying either a rate or a cost to the time that MTH would have taken if it had completed the contract using the LISA has the result that the sums for which E.ON contends as appropriate deductions are greatly in excess of the*

sums for which MTH contends. MTH submits that the appropriate deduction (net of additions referable to working with the Resolution) is just shy of €12,900,000, whereas E.ON submits that it is either just under €57,250,000 (its primary case) or just under €34,650,000 (its secondary case)."

5. A trial of certain preliminary issues was ordered.. I set these out in an Annex 1 to this judgment, together with the answers which Stuart-Smith J gave to them.

The Contract

6. The Contract was executed on 20 December 2006. Part C was a definition section which defined the Contract Price for the execution of the Works as € 101,454,052; the Time for Completion as 16 June 2008; and the Works as "*designing, manufacturing, delivering to Site, erecting, testing, inspecting and commissioning the Plant...in accordance with this Agreement, all Plant to be provided and all work to be done by the Contractor under this Agreement including work which (although not mentioned in this Agreement) are* [sic] *necessary for the stability or for the completion, or safe and proper operation of the Works*".

7. Part D contained Clause 8 which required the Contractor to design, manufacture, test, deliver and install and complete the Works in accordance with the Contract and within the Time for Completion. By Clause 14.1 MTH was to provide all the Contractor's Equipment necessary to complete the Works unless otherwise stated in the Employer's Requirements. Contractor's Equipment meant all appliances and things required for the purpose of the Works except Plant which was, in effect, everything to be provided under the Contract for incorporation in the Works.

8. Clause 25.1 provided that the Works should be completed within the Time for Completion. That was defined as 16 June 2008 unless time was extended under Clause 26, which provided that the Contractor could claim an extension of the Time for Completion if delayed by, *inter alia*, extra or additional work constituting a Variation.

9. Under the Contract E.ON was to make payment of the Contract Price in predetermined percentages at various Key Events. Part L1.4 contained a Payment Profile. Items 43-46 of the Profile provided for 4% of the Contract Price to be paid upon completion of the main installation of the foundations for each of Sections A - D. Each of these sections was the Completion of a group of 15 WTG foundations. Thus, in aggregate, the payment due by reference to the completion of the installation of the Section A - D foundations (which was the work originally to be performed with the LISA) was 16% of the Contract Price, or something in excess of € 16 million. The Payment Profile anticipated that the installation of the foundations (including a met mast which was subsequently omitted) would be completed by 5 November 2007, which was in accordance with MTH's draft programme dated 18 December 2006 that was included in Part L1.5. By Part L1.6 the "Key Date" for sections A - D of the Work for the purposes of liquidated damages pursuant to Clause 27.1 was 31 December 2007.

10. By Clause 27 of the Contract liquidated damages of £ 5,000 per day were payable from the day after the Key Date for sections A - D and were to continue until such time as Sections A - D had passed the Tests on Completion. These damages were,

subject to limited exceptions, to be to the exclusion of other remedies in respect of failure to Complete within the Time for Completion: Clause 42.3. They were payable only up to a maximum of 20% of the Contract Price i.e. € 20,290,810.40: Clause 27.1. By Clause 42.2. MTH's liability to E.ON under the Contract was in no case to exceed the Contract Price plus the maximum liquidated damages for delay in performance. Except in limited specified circumstances neither party was to be liable to the other for any loss of profit, loss of use, loss of production, loss of opportunity, loss of contracts or any other indirect or consequential damage: Clause 42.1.

11. If E.ON's entitlement to liquidated damages had reached the cap E.ON could serve a notice on MTH fixing a final (reasonable) time for completion: Clause 27.2. If MTH failed to complete within that time, for reasons not attributable to E.ON, E.ON could (a) require MTH to complete the Works; (b) complete the Works itself; (c) accept the parts of the Works that had passed the Tests on Completion and reject those that had not, recovering the sums paid for the latter and the costs of dismantling such work and clearing the Site; or (d) terminate the Contract. If it terminated the Contract E.ON would, *inter alia*, be entitled to recover its loss from MTH subject to the maximum liability provided for under Clause 42.2 of the Contract Price plus the maximum liquidated damages.

Part L of the Contract

12. The judge summarised some of the provisions of Part L thus:

> *"Part L of the Contract was entitled "Schedule of Prices, Payment Profile & Draft Programme":*
>
> *a)* ***Schedule L1.1*** *was a segregation (or breakdown) of the Contract Price of € 101,454,052. It showed, at a high level, what sums were attributed to specified elements of the Works. In particular:*
>
> *i) Manufacture of the foundations totalled just over €60 million[1];*
>
> *ii) Transportation of the foundations totalled just under €3.6 million;*
>
> *iii) Installation of the foundations totalled €22.1 million;*
>
> *iv) The Wait on Weather Allowance[2] was €3.58 million.*
>
> *b)* ***Schedule L1.2*** *provided prices for alternatives and extras;*
>
> *c)* ***Schedule L1.3*** *(which was expressly referred to in Clause 31.3) provided a Schedule of Rates "which will be used for the evaluation of Variation Orders". The rates for the provision of manpower were to be fully inclusive of all costs and charges including site and establishment overheads. Materials, plant and*

[1] Made up of € 23.964 million for manufacture of the monopiles and € 36.043 million for the transition pieces which together made up the foundation.

[2] Meaning payment for those days on which sea conditions rendered impossible the safe execution of parts of the Works.

sub-contract work mark-ups were stated generally to be on a cost-plus basis but certain categories of plant (including the day rate for foundation installation vessel spread) were separately specified;

d) The draft programme provided for the LISA and its vessel spread to be mobilised to site by 16 June 2007 and included a period of 142.2 days thereafter for the installation of the foundations. Of this:

i) 127.2 days related to the installation of the 60 WTG foundations; and

ii) 15 days related to the installation of the met mast (which was subsequently omitted) and the two substation foundations.

iii) Part E of the Contract provided (at E1.8) that the 142 day foundation installation programme comprised 104 days of installation and 38 days of anticipated Waiting on Weather."

The course of the Contract

13. The Contract did not run smoothly. For the purpose of the preliminary issues the parties agreed a statement of facts or, in some cases, assumed facts. The judge set out in his judgment the factual background insofar as it bore on those issues [17-43]. What follows is derived from that summary.

14. The LISA was not mobilised by 16 June 2007. She finally arrived on site on 1 September 2007. On 4 September MTH issued a revised programme which indicated that the installation would now take 255 days (242 days for the 60 WTG foundations and 13 days to install the 2 substation foundations), instead of the original 104 days. The met mast had by now been omitted.

15. On 16 September 2007 the LISA suffered what is called a "punch-through" incident in the course of a jacking trial. Two of her legs began to settle into the sea bed and there rapidly developed an uncontrollable penetration through the clay layer as a result of which the vessel inclined dangerously to starboard. The vessel was abandoned. By 3 October 2007 the LISA had been refloated. On 18 October 2007 MTH advised the Engineer that the repairs necessitated by the punch-through were expected to be completed on 20 October 2007. On 13 November 2007, by which date the LISA had still not returned to site, MTH advised that unrelated damage to the vessel's jacking cylinders observed during the repairs necessitated by the punch-through incident was going to take a long time to repair. For present purposes it is assumed that these delays were ones for which MTH was contractually responsible, although, if necessary hereafter, MTH will seek to rely on the force majeure clause in the Contract.

Variation Request No 5

16. On 16 November 2007 the Engineer sent to MTH Variation Request No 5, pursuant to Clause 31.2 (which contains a Variation Order Procedure), in respect of Resolution. By it MTH was notified that E.ON had secured the services of the Resolution following the completion by that vessel of certain other work; and that the Employer

had requested the Contractor to examine the utilisation of that vessel in order to mitigate delays to the Works. MTH was asked, *inter alia*, for its proposals for the adjustment to the Contract Price and to itemise savings from the Contract Price arising from the reduction in vessel charter time of the LISA and any other vessels and the savings in liquidated damages resulting from the shortening of the overall Programme. MTH was to assume that the Resolution arrived on Teesside between 26 November and 6 December 2007 and departed on 28 January 2008. The proposal was that E.ON would contract direct with the owners of the Resolution for the vessel, which was to be operational with marine crew, and that MTH should provide supervision of the Resolution and should manage and coordinate the overall foundation installation operation by the LISA, the Resolution and any other vessels.

17. On 26 November 2007 MTH indicated that repairs to the LISA would take until mid-March 2008. On 11 December 2007 MTH responded to the Variation Request setting out a new programme for the LISA, or, in the alternative, the LISA and the Resolution, indicating that, in the latter event, the Resolution could complete 11 foundations in 27 days with the remaining 51 foundations being completed by the LISA in 182 days.

18. On 19 December 2007 the Resolution arrived on site and mobilisation began.

Variation Order 5

19. On 21 December 2007 the Engineer issued VO 5 which recorded that the Resolution would be on hire from 11 December 2007 to 4 February 2008, although the possibility of an extension was raised. The Order stated:

> "*The Employer has secured the services of the MPI Resolution…. This Variation Order formalises the Employer making available the MPI Resolution, and certain project equipment and services, to the Contractor for use to install to install (sic) foundations at the Robin Rigg site, in order to mitigate delays to the Works. The agreed deployment of the MPI Resolution partly replaces some of the working time for vessel LISA A from the scope of the Agreement.*
>
> …
>
> *Contractual arrangements shall be as follows:*
>
> - *E.ON contracts directly with MPI for the vessel operational with the personnel and equipment detailed as Employer or MPI responsibility in [an attached document]*.
>
> …
>
> - *MTH provide supervision on Resolution*
>
> …
>
> - *MTH manage/coordinate the overall foundation installation operation by LISA, Resolution and any other vessels.*"

20. In the letter which accompanied the order the Engineer made clear that other than the reduction in the working time for the LISA as a result of the use of the Resolution the overall scope of supply of the Contract remained unchanged. That scope was to supply and install the 62 foundations and superstructures based upon the fixed Contract Price for the scope of Works defined in the Contract including, among other things, all vessel supply, port costs, equipment and labour. The letter also stated that the Employer was not significantly altering the "*risk allocation, pricing and contractual structure from the Original Agreement*".

2008

21. The LISA returned to site in early May 2008. Between 5 and 10 May 2008 a jacking trial took place, the result of which was that she was approved to install at only 37 of the 62 locations, and then only between May and September.

22. On 25 June 2008 MTH installed the monopile and transition piece to the west substation using the LISA. On 11 July 2008 MTH noted that the average cycle time for the LISA was likely to increase from around 2 to in excess of 6 days; that LISA had become disproportionately costly; and that the Resolution would be greatly more efficient in operation. MTH sought permission from the Engineer, pursuant to Clause 14.1 of the Contract, to remove the LISA from the project.

23. At the end of July 2008 the LISA's jacking system broke down as a result of operator error. She managed to complete the installation of the monopile on which she was working: thereafter repairs took most of August.

24. On 29 July 2008 the Resolution arrived back on site. On 30 July 2008 the Engineer issued a further Variation Request seeking MTH's proposal in relation to the use of the Resolution between 29 July and 28 November 2008. At the same time he rejected MTH's request to remove the LISA from site.

25. By a letter dated 29 August 2008 MTH provided a programme to completion which indicated that the Resolution would carry out 58 WTG foundations with the LISA installing two.

26. As the judge records [36], on 4 September 2008 there was a meeting between the parties' senior management during which MTH's proposal to remove the LISA from the project was noted and MTH was recorded as agreeing that the LISA was not "*fit for purpose"* for the Robin Rigg site. On 5 September 2008 MTH wrote to the Engineer recording that the LISA was "*disproportional (sic) costly*". MTH notified the Engineer that it intended to direct the LISA to Belfast where she was to be de-mobilised. On 12 September 2008 the Engineer responded, refusing to consent to the LISA's removal from site. MTH replied the same day stating that it intended to demobilise the LISA forthwith, notwithstanding the Engineer's objections. MTH did so.

Variation Order 9

27. On 27 October 2008 the Engineer issued Variation Order 9 which recorded that the Resolution would be on hire from 29 July 2008 to 5 December 2008. It also stated the following:

"*The Employer has secured the services of the MPI Resolution. This Variation Order formalises the agreed provision by the Employer of the MPI Resolution, and certain project equipment and services, to the Contractor for use to install wind turbine generator foundations at the Robin Rigg site, in order to mitigate delays to the Works. The agreed deployment of the MPI Resolution reduces the work that will be undertaken by the vessel LISA A.*

…

Contractual arrangements shall be as follows:

- *MTH retain overall contractual responsibility for design, supply, transportation, storage, handling, and installation of foundations in accordance with the Agreement.*

  …
- *E.ON contracts direct with MPI for the vessel operational with the personnel and equipment detailed as Employer or MPI responsibility [in an attached document]*

  …
- *MTH manage/coordinate the overall foundation installation operation by LISA, Resolution and any other vessels*"

28. On the same day the Engineer issued Variation Request No 10 proposing the continued use of Resolution in the period after that addressed by Variation Order No 9 until 5 March 2009.

Variation Order No 10

29. On 5 December 2008 the Engineer issued Variation Order 10 which recorded that Resolution would be on hire from 5 December 2008 to 19 February 2009. So far as was material it was in the same terms as Variation Order 9.

30. On 5 February 2009 the foundation installation was complete. In the event the Resolution had been used to install 60 of the 62 foundations in 3 separate "campaigns" between December 2007 and February 2009.

Variations

31. Clause 31 deals with Variations. Clause 31.1 entitles the Engineer to issue a Variation Order to the Contractor instructing it to Vary any part of the Works. "*Variation*" was defined so as to mean a "*variation, alteration, addition or omission from or to the Works in accordance with a validly issued Variation Order.*" Clause 31.2 prescribed a procedure involving (a) notification by the Engineer of the proposed nature and form of a proposed Variation; (b) a response by the Contractor describing the work, if any to be performed, and a programme for its execution, with proposals for any necessary modification to the contract programme and an adjustment to the Contract Price; and then (c) a Variation Order.

32. Clause 31.3 provides as follows:

"31.3 DISAGREEMENT ON ADJUSTMENT OF THE CONTRACT PRICE

If the Contractor and the Employer are unable to agree on the adjustment of the Contract Price, the adjustment shall be determined in accordance with the rates specified in Part L, Schedule L1.3 Schedule of Rates.

If the rates contained in the Schedule of Rates (Schedule L1.3) are not directly applicable to the specific work in question, suitable rates shall be established by the Engineer reflecting the level of pricing in the Schedule of Rates (Schedule L1.3).

Where rates are not contained in the said Schedule, the amount shall be such as is in all the circumstances reasonable. Due account shall be taken of any over- or under-recovery of overheads by the Contractor in consequence of the Variation."

33. Clause 31.3 thus has three "limbs" which may be used by the Engineer when determining the adjustment to the Contract Price. The first ("*the adjustment shall be determined in accordance with the rates specified in Part L, Schedule L1.3 Schedule of Rates*") is agreed not to be directly applicable. Schedule L1.3 contains, as the judge recorded, first, a schedule of labour rates for various different categories of labour from Project Manager to unskilled labourer. Next, it provides for a percentage mark-up to be added to the actual cost by the Contractor for the provision of material plant and specialist sub-contract services. Then it provides day rates for various categories of plant.

34. The parties' primary case was that it was the second limb ("*suitable rates ...established by the Engineer reflecting the level of pricing in the Schedule of Rates*") that was applicable. As to that the judge held that under this limb the Engineer should establish suitable rates which "*reflect the level of pricing*" in Schedule L1.3, meaning that he should have regard to the rates and prices in that Schedule and establish rates which were broadly consistent with those rates after making due allowance for the differences that result in their not being directly applicable.

35. The third limb ("*the amount … [that] is in all the circumstances reasonable*") applies where there is no rate in Schedule L1.3 that can be reflected in a suitable rate for the purposes of limb 2. The parties relied on this limb if the second limb was held to be inapplicable.

36. As the judge pointed out [54] it is not inevitable that a Variation be priced under either limb 1 (Schedule L1.3 rates), limb 2 (rates reflecting Schedule L1.3. rates) or limb 3 (such amount as is in all the circumstances reasonable). Some matters may fall within limb 1; some within limb 2 but not limb 1; some only within limb 3.

The judge's approach

37. The judge rightly rejected [56] a submission by MTH that the valuation provisions of Clause 31.3 did not apply to omissions and held [16], also rightly, that the provision of the LISA was part of the Works to be done under the Contract. The work associated with the use of the Resolution also fell within the Works [61]. As a result the effect of the Variation Orders was to omit part of the Works associated with the LISA and to require MTH to carry out additional work in relation to the Resolution which added to the Works.

38. Accordingly he answered Preliminary Issue 1 by saying that:

> "*In valuing VOs 5, 9 and 10, the varied work should properly be characterised as a Variation (by omission and/or addition) of part of the Works, within the meaning of the first sentence of Clause 31.1.of the Contract*".

The rival contentions

39. As is apparent from [4] above, the rival contentions before the judge as to how the omission should be valued were these. MTH submitted that the valuation of the omissions should be based upon the original contribution of the omitted work to the Contract Price. E.ON on the other hand submitted that the Engineer should carry out a hypothetical calculation based on what would have been a reasonable sum for the work omitted had it in fact been carried out by MTH over whatever timescale it would have taken.

The interpretation of Clause 31

The judgment

40. The judge held that, when seeking to interpret Clause 31.3, the particular circumstances in which a Variation Order could be or was generated should be left out of account. The Clause must have a single meaning capable of consistent application across the wide spectrum of possible circumstances in which it would need to be applied. The actual circumstances applicable to any Variation Order would involve post contract conduct, not usually an admissible guide to interpretation, and, in any event, the full reason why the Variation Order procedure has been operated in the way it was might well be unknown, as in the present case it was.

41. The judge observed that, when the inadequacy of the LISA became apparent E.ON had a range of contractual options. It could have said that that was MTH's problem, which MTH would have to sort out, failing which it would become liable to pay liquidated damages up to 20% of the Contract Price.

42. If, on the other hand, E.ON contemplated the hiring of the Resolution it could have entered into a binding agreement with MTH for MTH to bear the cost of hiring her either directly or by indemnifying E.ON in respect of it. In fact, for reasons which are not clear, it chose to hire the Resolution itself; to provide it as free issue to MTH, rather than leaving MTH with the responsibility for providing all necessary Contractor's Equipment; and to implement the Variation Order procedure. That underlined the fact that the circumstances in which Variation Orders 5, 9 and 10 came to be issued were not a reliable guide to interpretation. The answer to the competing submissions was to be found within the four walls of the Contract itself.

43. Whilst E.ON was correct to submit that under limbs 1 and 2 the Engineer is to refer to Schedule L1.3 and not L1.1 that did not, the judge held, mean that Schedule L1.1 was irrelevant. The Contract Price was a fixed lump sum. There were, thus, no separate contracts for the execution of constituent parts of the Works. But Schedule L1.1. was inserted to show what amounts the constituent parts of the Works listed contributed to the Contract Price. The contribution of constituent parts of the Works to the Contract Price was also reflected in Schedule L1.4 with its provision of stage payments by

reference to completion of particular stages of the Works. The correlation between Schedules L1.1. and L1.4 was not exact. In Schedule L1.1 the total for installation of all foundations was € 22.1 million, whereas the stage payments under Schedule L1.4 on completion of installation of the foundations was slightly over € 16.4 million. Overall the Contract recognised the principle that discrete parts of the Works made discrete contributions to the Contract Price.

44. The judge recorded the recognition by Mr Adrian Williamson QC for E.ON that if the entirety of any item identified in Schedule L1.1 were to be omitted by a Clause 31 Variation the sum appearing against that item should be omitted as the appropriate adjustment to the Contract Price [73]. Similarly, the judge thought, if a part of any item was so identified the deduction should be based on the contribution of that part to the Contract Price, assessed by the Engineer as best he could using the guidance as to rates and amounts set out in Clause 31.3.

E.ON's alternative approach

45. The judge regarded E.ON's alternative approach as open to a number of fundamental objections.

46. First, it was contrary to the principle that parts of the Works had a price which MTH was entitled to be paid if the part was carried out, but not if it was not.

47. Second, it ignored the fact that the sums which MTH would be entitled to be paid under the Contract would be the same however long it took MTH to execute them: the contractual mechanism for dealing with delay was by way of liquidated damages, not an adjustment (downwards) of the Contract Price. There was no reason why the issuing of the Variation Orders should mean that the additional delay which would have been incurred had MTH continued to work with the LISA had to be reflected in an adjustment to the Contract Price, particularly when the delay had in fact been avoided.

48. Third, if the Contract had continued with the LISA, MTH would have received the Contract Price, which E.ON would be obliged to pay, and would have had to pay the cost of continued hire of the LISA herself. Yet on E.ON's interpretation E.ON's obligation to pay the Contract Price would be reduced by the amount it would have had to pay for the LISA if she had carried out the works plus the amount of the extended hire that MTH would have incurred if the LISA continued to be used after the time when the Contract contemplated that it would have finished. There was no good reason why E.ON should have a reduction of the Contract Price by reference to the notional cost of hiring the LISA for however long it would have taken, absent any Variation Orders, when those costs would not have affected the statement of account as between MTH and E.ON.

49. Fourth, the exercise was one which was at best hypothetical - because it is not known how long the work would have lasted if it had been carried out; and at worst fictitious - because by June 2008 it was established that the LISA could not carry out work at 25 of the 62 locations. As to the hypothetical aspect of the exercise the judge said this [76]:

> "*E.ON seeks to meet this objection by basing its calculations on MTH's projections of time the LISA would have taken per foundation and extrapolating it forwards. However, as the factual summary set out above shows, MTH's estimates of time that it would take were constantly shifting, and there is no reason to suppose that the estimate of 3.83 days per foundation given on 22 June 2008 was more reliable than the estimate of 3.97 days per foundation given on 22 May 2008, or vice versa. To the contrary, on 11 July 2008 the Claimant noted that the average cycle time for the LISA was likely to increase to in excess of six days. When asked why E.ON had not based its calculations on that estimate, the only reply given was that perhaps E.ON had been too generous, which is neither compelling nor convincing.*"

50. Fifth, the outcome of the exercise would be dependent on when the Variation of the Work occurred, since the prognosis as to how long the work would have taken if the LISA had been used varied according to whether the Variation took place before or after, and at what stage after, the problems with the LISA became apparent.

51. Lastly, the interpretation proffered by E.ON would have the curious consequence that the net deduction from the Contract Price (after additions referable to the use of the Resolution) is € 57 million leaving an adjusted Contract Price of € 44 million which is less than the price for the manufacture of the foundations alone which was just over € 60 million. This was contrary to the principle that MTH was entitled to be paid for the work it in fact carried out.

52. Accordingly the judge concluded that MTH was right to submit that E.ON was attempting to achieve additional contractual remedies for breach of contract under the guise of adjustment of the Contract Price. He held that under each of the limbs of Clause 31.3 what the Engineer should be seeking to achieve was an approximation to the Contract Price made by those parts of the Works which were omitted by the Variation Orders.

53. As a result the answer that the judge gave to Issues 3 and 8 was "Yes". The answer that he gave to Issues 4 and 9 was, subject to a small qualification, "No". Issues 5, 6 and 7 did not arise in the light of the answer to Issue 4; and Issues 10, 11 and 12 did not arise in the light of the answers to Issue 9.

Discussion

54. I have set out this summary of the judge's reasons since they appear to me, particularly in combination, to be compelling.

E.ON's submissions

55. Mr Adrian Williamson QC for E.ON submits that the judge was in error. In their pleading E.ON had explained how they put their case. The use of the Resolution instead of the LISA is to be regarded as a method change, rather than an addition and an omission. Accordingly the proper approach is to assess the financial effect of the change by valuing the work if carried out by the contractor with the LISA and if carried out by the Resolution. The difference between the two produces the reduction in the price. If E.ON had instructed MTH to use the Resolution this would have been

the basis for any price variation. The fact that the instruction proceeded on the basis that E.ON would pay for the Resolution cannot require any different approach.

56. Accordingly the exercise that falls to be carried out in this case is to ask how long it would have taken the LISA to complete the installation (x days) and multiply it by a rate (€ y) producing a total (€ z). If a similar exercise was carried out in relation to the Resolution, the number of days would be less than x, although the rate might be higher than € y. The total would be less than € z.

57. The judge – Mr Williamson submits – was wrong in a number of respects. Firstly, Schedule L1.1 with its segregation of the Price is contractually irrelevant to any question of variation of the Contract Price. There is a single Contract Price and no warrant for saying that any part of the Contractor's obligation has any particular price attributed to it. Clause 31.3 makes no mention of that Schedule. It directs attention to the L1.3 schedule of rates, or rates reflecting the level of pricing in that schedule, or, failing that a reasonable amount. The one thing it does not mention is Schedule L1.1. Equally irrelevant is Schedule L1.4 which is no more than a provision for stage payments. The judge referred to a "*missing element*" namely an indication of how the rates referred to in limbs 1 and 2 are to be treated so as to reach an adjustment of the Contract Price. But in truth there is no missing element. What is required is that you use the rate identified in limbs 1 or 2 or a reasonable amount under limb 3.

58. Next he said that the judge had wrongly rejected the submission that MTH's interpretation involved a transfer in the allocation of risk. It was not clear to me to what risk this submission was directed. As I understood him, Mr Williamson's point was that, if the cost of carrying out the installation is extracted from the Contract Price in the manner contended for, it removes any liability for the delay in the installation, whereas under the Contract any such delay was entirely at MTH's risk.

59. If, for instance, MTH was instructed to omit the LISA and include (at its expense) the Resolution, MTH would, on its construction, omit from the Contract Price the proportion attributable to the LISA. There would then fall to be added the reasonable rate for the Resolution for the number of days that it took, even if the number of days it took with that vessel comfortably exceeded the 104 days contemplated in the Contract. There is also, it was submitted, an error in relying on Schedule L1.1 for the omission side of the exercise whilst relying on L1.3 for the addition.

Conclusions

60. I do not accept that this point is valid. The substitution of the Resolution for the LISA relieved MTH of the obligation to continue to pay for the latter vessel and the risk that it might be exposed to a continuing claim for liquidated damages on account of the LISA's inadequacy. In company with the judge I do not regard this as a transfer of risk, or, if it is, that that matters. MTH remained potentially liable for liquidated damages to the extent that the Contract was not completed within the time stipulated, but better able to avoid or reduce that consequence because the Resolution was a more efficient vessel. The transfer of risk that did occur was, as the judge pointed out, that which arose from E.ON's decision to hire the Resolution herself without putting in place any mechanism which would transfer the cost of hire to MTH.

61. The essential fallacy of E.ON's case is that it ignores the fact that by the Contract MTH (a) agreed to carry out the work for a fixed price and (b) assumed the risk that the price would, in the event, not be enough to cover the work which it had promised to do ("the pricing risk"). Whilst the Contract Price was a single price for the whole of the work it is obvious that some part of it related to the work of installation. If the installation work was wholly omitted from the Contract the whole of the price properly attributable to such work would fall to be omitted; and if part was omitted, there should be omitted a proportion of the price that appropriately reflected the work omitted and which, but for the omission, would have been paid.

62. It is neither necessary nor appropriate to work out how many days it would, in fact, have taken to complete the installation with the LISA and apply a rate to those days. Such an approach would relieve MTH of the pricing risk as is indicated by the fact that, if E.ON be right, the variation ends up costing € 62 million when the product of the cost of installation and Wait on Weather allowance under Part L1.1 is of the order of € 25 million. The logical conclusion of E.ON's approach would appear to be that, if, pursuant to a Variation Order half the contract works were omitted the deduction from the price could be 100% if the time that MTH would in fact have taken to fulfil the 50% omitted would have been so long that it justified a valuation equivalent to the whole of the price.

63. Mr Williamson submitted that in determining the length of time that the LISA would have taken to complete the Works it would be appropriate to take the time actually taken by the Resolution and multiply it by an "efficiency factor" to take account of the differences between the efficiencies and operational characteristic of the two vessels. E.ON, he said, assessed that factor to be 1.75. By that means, he suggested, the impact of the operating difficulties experienced by the LISA in performing the works that had actually been carried out, the problems it would still have had, and the effect of the weather on the operation of the LISA would all remain the responsibility of MTH.

64. However, even on that basis, the position would be that MTH would not retain the price risk. If, for instance, the time for Resolution to do the installation work was 104 days the valuation of the work if done by MTH would be 182 days (104 x 1.75) times the appropriate daily rate which would produce a sum greatly in excess of any appropriate allocation of the Contract Price to installation work.

65. I do not accept that, when the Engineer carries out a valuation under limb 2 or limb 3 he is required to ignore Part L1.1. In carrying out the exercise of valuing an omission it is necessary to consider the Contract as a whole and, in particular, the incidence of the pricing risk. In this respect there is a fundamental difference between the valuation of an omission and the valuation of an addition. In the latter case what is added is not already a part of the Contract embraced within the Contract Price. In the case of an omission what is omitted is part of the Contract.

66. It may, in any given case, be a matter of some difficulty for the Engineer to determine the precise contribution of the work omitted to the Contract Price. For that purpose he may need to look at any potentially relevant material, of which the way in which the Contractor built up the price is an example. Another source of relevant material is Part L1.1, which, as the judge put it, "*at least formalised the amounts that had been attributed to the parts of the Works*".

67. Any difficulty in this respect does not justify a quite different exercise of working out how long the LISA would in fact have taken and applying to that period a rate so as to produce a sum. This would involve valuing work which, in fact the LISA could not do, and would be an exercise producing (a) markedly different results depending on the date when the Variation was ordered, and (b) results which cannot represent an appropriate proportion of the price attributable to the omitted work.

68. I do not think it matters much whether the Variation is called a change in the method of working or an addition and an omission – although, if it makes a difference, the latter seems to me the more appropriate description, as the judge decided under Issue 1. To speak of "*a change in the method of working*" is to use language which does not appear in the Contract whereas the definition of "*Variation*" includes additions or omissions from or to the Works. What the relevant Variations did was to omit part of the Works associated with the LISA and to require the additional work associated with the Resolution.

69. The reason why the issue does not matter much is because the choice of nomenclature does not determine how the omission is to be treated. In that respect there *is* a missing element in Clause 31 in the sense that it does not, in terms, tell you how to deal with omissions. For that purpose it is necessary to consider the contract as a whole, the price risk for MTH inherent in it, and the fact, as it seems to me, that the parties must have intended that an omission would result in a reduction in price commensurate with the work omitted, whilst ensuring that MTH continued to be paid (for work which it in fact carried out) the proportion of the Contract Price attributable to that work.

70. An issue arises as to whether the valuation falls to be done under limb 2 or limb 3, it being common ground that the case does not come within limb 1. The primary case of both parties is that it falls to be done under limb 2. MTH's case on the pleadings was that, under limb 2, the Engineer was required to ascertain the relevant rate or price that must be taken to be included in the Contract Price from the Segregation of Price schedule and ensure that it "*reflects*" the level of pricing in the Schedule of Rates. Paragraph 77 and Attachment 1 of the Reply set out how MTH say this reflection can be shown. MTH takes the total amounts for the various items in that Attachment relating to the installation of all monopiles to which a daily rate would be applicable (together with percentages for risk, admin & profit and general costs). The cost items are primarily derived from MTH's internal tender build-up spreadsheets with additional items reflecting adjustments to the tender price during the contract negotiation period. When the total is divided by 104 (the number of days contemplated by the contract for installation) it produces a figure of at least € 134,083.10, which, it is said, approximates to the € 150,000 which appears in the Schedule of Rates as the daily rate for the foundation installation vessel spread.

71. By this process it is said that the relevant items in the tender breakdown (as adjusted during the negotiation period) which form the basis of the Segregation of Price reflect the level of pricing in the Schedule of Rates. As the judge held, the rates do not have to be identical but the rates established under limb 2 should be broadly consistent with the Schedule L1.3 rates after making due allowance for the differences that result in their not being directly applicable.

72. That reflection having been established, the adjustment to the Contract Price is effected, according to MTH, in accordance with Attachment 3 to the Reply which deducts from the Contract Price certain items from the breakdown (the charter of the LISA, the pile plugs, and the crane for handling end closures) together with, in respect of the wait-on-weather allowance, the charter fee and the crane handling for end closure. This produces, when the risk, admin & profit and General Costs percentages are added in, the € 13,558,175.28 figure.

73. In the alternative, it is said, if limb 2 is inapplicable, the same exercise falls to be carried out under limb 3.

74. The judge did not decide whether this was a limb 2 or a limb 3 case. That was not one of the 12 issues for his determination. He answered the issues that did arise both under limb 2 and limb 3. His critical conclusion [80], with which I agree, was that under each of the limbs the Engineer should be seeking to achieve an approximation to the contribution to the Contract Price made by those works which were omitted by the Variation Orders and that the reference to the amount of the adjustment being "*such as is in all the circumstances reasonable*" in limb 3 should be interpreted accordingly, with the Engineer having a broad discretion to take into account all the circumstances which may reasonably be taken into account for the purpose of determining what was the contribution of the omitted works to the Contract Price. The Engineer, as he put it, must do his best using the guidance as to rates and amounts set out in Clause 31.3 [74]. In order to fulfil his task it may well be that both limb 2 and limb 3 are applicable since different items may fall under different limbs.

75. Since the question is one for the Engineer to decide (with that guidance) and since limb 2 may be applicable to some items and limb 3 to others it was and is not appropriate for the Court to state that one limb applies rather than the other. Since on MTH's approach the same result arises whether the matter is looked at in terms of limb 2 or 3 it may not matter which is applied. Nor has the judge (much less this Court) made any ruling as to the particular figures or approach pleaded.

76. We do not, in the present case, have to consider how, if E.ON had required MTH to hire the Resolution, the Engineer would have had to value the addition of that vessel. It would, as it seems to me (but which I do not decide), be necessary to determine how long it would take her to perform the installation work required by the Variation and to apply to that period either a rate derived from items 1 and 10 in Schedule L1.3 to reflect her greater capability (limb 2) or the cost of hiring her with all her equipment and labour plus an appropriate markup (limb 3). If that has the effect that the risk of MTH being paid less for the installation work than it would have cost it using the LISA is averted or reduced, so be it. Neither party has cause for complaint. The Contract Price and Time for Completion assumed the use of the LISA, and MTH took the price risk only on that footing. If E.ON required the use of the Resolution, it cannot claim the price benefit which would have applied in the case of another vessel.

77. Mr Williamson postulated a case where MTH was granted permission to use a vessel which was as inadequate as the LISA – call her "LISA B". On MTH's approach, he says, the portion of the price relating to the LISA would be omitted and there would then be added back the days used by the LISA B resulting in an extra payment to MTH for a vessel which is identically inadequate. The example chosen seems to me somewhat unlikely. MTH has no right to a Variation (Clause 31.6) and, if it asked for

a Variation such as this, E.ON could stipulate, as a condition of agreeing to one, that there should be no change in the Contract Price. The alternative suggestion - that E.ON might itself wish to substitute a vessel that was as inadequate as the LISA - seems to me remoter still. I do not regard these theoretical situations as casting doubt on the analysis of the judge, which I would adopt.

78. For these reasons, which largely reflect those of the judge, I would dismiss the appeal.

LORD JUSTICE PATTEN

79. I agree.

LORD JUSTICE LONGMORE

80. I agree also.

ANNEXE 1

List of Preliminary Issues

1. In valuing the Resolution Variations ("RVs"), should the varied work properly be characterised as:

    a) a change in the method of working; or

    b) the omission and addition of work; or

    c) in some other way?

    Answer: In valuing VOs 5.9 and 10, the varied work should properly be characterised as a Variation (by omission and/or addition) of part of the Works within the meaning of the first sentence of Clause 31.1 of the Contract.

2. Does the approach to the valuation of the RVs depend upon whether it was the Claimant or the Defendants who paid the cost of the hire of the Resolution?

    Answer: No

    Limb 2

3. In valuing that element of the RVs that constitutes the omission of the LISA under Limb 2, is the Engineer required to:

    a) ascertain the component of the original Contract Price that relates or must be taken to relate to the provision of the LISA; and

    b) ensure that it (or the rates upon which it is based) reflect the level of pricing in the Schedule of Rates and, if so,

c) deduct it from the Contract Price?

Answer: Yes

4. In determining the adjustment of the Contract Price in respect of the RVs under Limb 2, is the Engineer entitled to take into account the following matters:

    a) the time it would in fact have taken to perform the Works if the LISA had been deployed?

    b) the time that it did in fact take to perform the Works with the Resolution?

    c) the fact that had the LISA been used, the allowance in the Contract Price would have been exceeded?

    d) the precise attendant equipment and labour that the Claimant provided whilst working with the Resolution?

    e) the marginal cost increase or decrease to the Claimant resulting from the instruction(s)?

Answer: No, save that in assessing the addition to the Contract Price referable to the use of the Resolution, the precise attendant equipment that MTH provided while working with the Resolution falls to be taken into account by the Engineer

5. If the answer to 4(a) is "yes", then is the time it would in fact have taken to perform the Works if the LISA had been deployed to be determined by the application of an efficiency factor to the time that the Resolution took to perform the Works?

Answer: Issues 5, 6 and 7 do not arise in the light of the answer to issue 4

6. If the answer to 5 is "yes", are the following matters, to the extent that they are established because they are not admitted by the Claimant, relevant to the determination of that efficiency factor:

    a) the superior performance of the Resolution;

    b) the impact of the operating difficulties experienced by the LISA in performing the works that had actually been carried out;

    c) the impact that the weather would have had on the operation of the LISA.

7. If the answer to any part or parts of questions 4 and 5 is "yes", do the answers depend upon any of the disputed facts identified in the Statement of Facts, and if so which?

<u>Limb 3</u>

8. In valuing that element of the RVs that constitutes the omission of the LISA under Limb 3, is the Engineer required to ascertain and deduct the component of the original Contract Price that relates or must be taken to relate to the provision of the LISA?

Answer: Yes

9. In determining the adjustment of the Contract Price in respect of the RVs under Limb 3, is the Engineer entitled to take into account the following matters:

    a) the time it would in fact have taken to perform the Works if the LISA had been deployed?

    b) the time that it did in fact take to perform the Works with the Resolution;

    c) the fact that had the LISA been used, the allowance in the Contract Price would have been exceeded;

    d) the reasons why the Defendants decided to instruct the use of the Resolution in place of the LISA;

    e) whether the LISA was capable of performing all the Works in any event;

    f) the precise attendant equipment and labour that the Claimant provided whilst working with the Resolution;

    g) the marginal cost increase or decrease to the Claimant resulting from the instruction(s).

    Answer No, save that in assessing the addition to the Contract Price referable to the use of the Resolution, the precise attendant equipment that MTH provided while working with the Resolution falls to be taken into account by the Engineer

10. If the answer to 9(a) is "yes", then is the time it would in fact have taken to perform the Works if the LISA had been deployed to be determined by the application of an efficiency factor to the time that the Resolution took to perform the Works?

    Answer: Issues 10, 11 and 12 do not rise in the light of the answers to Issue 9.

11. If the answer to 10 is "yes", are the following matters, to the extent that they are established because they are not admitted by the Claimant, relevant to the determination of that efficiency factor:

    a) the superior performance of the Resolution;

    b) the impact of the operating difficulties experienced by the LISA in performing the works that had actually been carried out;

    c) the impact that the weather would have had on the operation of the LISA.

12. If the answer to any part or parts of questions 9 and 10 is "yes", do the answers depend upon any of the disputed facts identified in the Statement of Facts, and if so which?