



AD HOC ARBITRATION

PROCESS AND INDUSTRIAL DEVELOPMENTS LTD. V. THE MINISTRY OF PETROLEUM RESOURCES OF THE FEDERAL REPUBLIC OF NIGERIA

FINAL AWARD

31 January 2017

Tribunal:

[Leonard Hoffmann](#) (President)

[Christopher Bayo Ojo](#) (Appointed by the respondent)

[Anthony Evans](#) (Appointed by the claimant)

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Final Award

A. INTRODUCTION

1. This Final Award is signed and issued by the majority of the Tribunal (Lord Hoffmann and Sir Anthony Evans). The dissenting opinion of Chief Bay Ojo SAN is attached.
2. The reference arises out of a Gas Supply and Processing Agreement ("the GSPA") dated 11 January 2010 made between the Claimant Process and Industrial Development Limited ("P&ID") and the Ministry of Petroleum Resources of the Federal Government of Nigeria ("the Government") whereby the Government agreed that for a term of 20 years it would make to available to P&ID 400 MMScuFD of Wet Gas and P&ID agreed to process the gas and return approximately 85% by volume to the Government in the form of Lean Gas.
3. This is the final award in the reference, the Tribunal having previously issued two partial final awards. By its first Partial Final Award dated 3 July 2014 the Tribunal ruled that it had jurisdiction and that the GSPA was valid and binding. By its second Partial Final Award dated 17 July 2015 the Tribunal decided that the Government had repudiated the GSPA and was liable in damages to P&ID. This Final Award deals with the quantification of the damages for which the Government is liable.

B. THE PARTIES AND THEIR LAWYERS

4. P&ID is an engineering and project management company registered at Trident Chambers, P.O. Box 146, Road Town, Tortola, in the British Virgin Islands. It was represented by SC A ONTIER LLP of One New Ludgate, 60 Ludgate Hill London EC4M 7 AW:

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5. The Government is the Ministry of Petroleum Resources of the Federal Government of the Federal Republic of Nigeria whose office address is 11th Floor, Block D, NNPC Towers, Herbert Macaulay Way, Central Business District, Abuja, Nigeria. It was represented by Chief Bolaji Ayorinde SAN, FCI Arb, OFR of B. Ayorinde & Co, Adebayo Chambers, 136 Awolowo Road, Ikoyi, Lagos, Nigeria.

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C. GOVERNING LAW AND ARBITRATION CLAUSE

6. Clause 20 of the GSPA, so far as relevant, provides:

"The Agreement shall be governed by, and construed in accordance with the laws of the Federal Republic of Nigeria.

The Parties agree that if any difference or dispute arises between them concerning the interpretation or performance of this Agreement and if they fail to settle such difference or dispute amicably, then a Party may serve on the other a notice of arbitration under the rules of the Nigerian Arbitration and Conciliation Act (Cap A18 LFN 2004) which, except as otherwise provided herein, shall apply to any dispute between such Parties under this Agreement. Within thirty (30) days of the notice of arbitration being issued by the initiating Party, the Parties shall each appoint an arbitrator and the arbitrators thus appointed by the Parties shall within fifteen (15) days from the date the last arbitrator was appointed, appoint a third arbitrator to complete the tribunal..

The arbitration award shall be final and binding upon the Parties. The award shall be delivered within two months after the appointment of the third arbitrator or within such extended period as may be agreed by the Parties. The costs of the arbitration shall be borne equally by the Parties. Each party shall, however, bear its own lawyers' fees.

The venue of the arbitration shall be London, England or otherwise as agreed by the Parties. The arbitration proceedings and record shall be in the English language..."

7. By Procedural Order No 12 dated 26 April 2016 the Tribunal ruled that the seat of arbitration was London, England.

D. PROCEDURAL HISTORY

8. The procedural history of the reference up to the issue of the second Partial Award will be found in the first and second Partial Final Awards.
9. On 17 August 2015 the Tribunal wrote to the parties proposing a case management conference on 3 September 2015 to consider procedural matters for the next and final phase of the arbitration, which would be to determine the quantum of damages payable by the Government.
10. On 20 August 2015 the Government's then lawyers wrote to the Tribunal requesting that the conference be postponed to 10 September 2015 so that it could make settlement proposals. The

Tribunal agreed.

11. After a further request by the Government for postponement, the conference was fixed for 10 am London time on 28 September 2015.
12. At 9:18 am on 28 September 2015 the Government's lawyers sent the Tribunal an e-mail saying that as a Minister of Justice had not yet been appointed to the new Nigerian government, they would be "unable to make any major contribution to the Case Management Conference scheduled for today and therefore request for a postponement."
13. On 27 October 2015 the Tribunal made Procedural Order No 10 in the form of an order nisi giving the Government leave to apply to discharge or vary it provided such application was made before 6 November 2015. It directed P&ID to serve all the documents and evidence upon which it intended to rely for the quantum hearing by 4 December 2015 and the Government to serve its documents and evidence by six weeks thereafter. No application to discharge or vary was made.
14. Pursuant to Procedural Order No 10, on 4 December 2015 P&ID served the expert reports of Andrew Caldwell, Simon Ede, Anthony Melling and Bradley Wolf of the Berkeley Research Group ("BRG").
15. On 21 December 2015 the Respondent applied to the Tribunal to vary Procedural Order No 10 by requiring the Claimant to serve a written statement of its case on quantum and extending the Respondent's time for serving its evidence.
16. On 23 December 2015 the Government applied to the High Court of Justice in London (the Commercial Court) for an order under the Arbitration Act 1996 setting aside the second Partial Final Award.
17. On 7 January 2016 the Respondent submitted a draft Procedural Order No 11, which provided that the Claimant should serve a written statement of its case by 12 February 2016 and that the Respondent serve a statement of its case and the evidence and documents upon which it relied by 11 March 2012.
18. On 8 January 2016 the Claimant agreed to the Respondent's proposed timetable and on 18 January 2016 the Tribunal confirmed it as Procedural Order No 11.
19. On 10 February 2016 Mr Justice Phillips, sitting in the High Court of Justice in London, dismissed the Government's application to set aside the second Partial Final Award.
20. On 7 March 2016 the Respondent applied for a further extension of its time to submit its statement of case and evidence until the first week in June 2016.
21. On 16 March 2016 the Tribunal extended the Respondent's time for service of its statement of case and evidence until 8 April 2016.
22. By Procedural Order No 13 dated 24 June 2016 the Tribunal fixed a hearing of the determination of damages in London on 22nd-24th July and gave directions for the service of evidence and

- submissions.
23. On 19th July 2016 the Tribunal postponed the hearing until 30-31 August 2016 and the parties agreed consequential changes in the earlier procedural steps.
 24. On 12 August 2016 the Government served an expert report by Upstream Commercial Advisory Limited ("Upstream").
 25. On 19 August 2016 P&ID served a reply report from BRG.
 26. On 22 August 2012 P&ID served written submissions.
 27. On 24 August 2016 the Government served written submissions.
 28. On 30 and 31 August 2016 the Tribunal held a hearing at the International Dispute Resolution Centre, 70 Fleet Street, London EC4Y 1EU. The parties were represented as above. Mr Seamus Andrew and Chief Ayorinde made oral submissions and Andrew Caldwell, Simon Ede, Anthony Melting and Bradley Wolf of BRG and Ade Dare of Upstream were cross-examined.

E. THE FINDINGS ON LIABILITY

29. Before considering the quantification of the Government's liability, it is necessary to be clear about the findings made by the Tribunal in its second Partial Final Award. The evidence for P&ID at that stage consisted of a statement by Mr Michael Quinn dated 10 February 2014, the then chairman of P&ID, who died before the hearing on 1 June 2015. He gave account of what had happened after the signature of the GSPA:

"102. The day after the signing of the GSPA, on 12 January 2010, I wrote to the Minister on behalf of P&ID to inform him that P&ID wished to commence work at once...

103. I was keen to implement the GSPA as soon as possible...I wished to minimise any delay which might be caused by the operators of the 2 concessions that had been identified as likely sources of Wet Gas for the project. P&ID required from the Government certain up to date information which would be critical to the construction of the gas processing facility which P&ID would be building in Calabar to strip the Wet Gas. For instance, the precise make-up of the Wet Gas (which was also relevant to the Government's contractual obligations to supply Wet Gas with a minimum propane and butane content) and the pressure at which it would be delivered into the gas pipeline which would transport it to Calabar...

109. In the meantime, the site for the onshore plant at Calabar for the construction of the gas stripping plant and gas storage facilities had been selected by P&ID and secured from the Government of Cross River State. On 1 February 2010 Mr Hitchcock wrote to the Governor of Calabar requesting the formal allocation of the land upon which the plant would be constructed...On 16 February 2010 approval was granted, by the Government of Cross River State, to P&ID, for the allocation of Parcels 1 & 2 of the Energy City (Industrial) at Adiabo in

Odukpani Local Government Area, containing an area of about 50,662 hectares of land, for the industrial use of P&ID.

110. On 14 May 2010, I wrote to NNPC to update it on the progress made by P&ID. I pointed out that all of the project finance was in place, 90% of the engineering designs had been completed, a 50 hectare site had been allocated to P&ID by the Cross Rivers State Government, and that Addax Petroleum had confirmed to the DPR its readiness to supply to P&ID the Wet Gas that it was at that time flaring in OML 123 in time for Phase 1 of the Project as set out in the GSPA. I asked the Group Managing Director of NNPC to authorise NAPIMS to oversee and conclude the necessary arrangements between P&ID and Addax, by which I meant the engineering logistics of delivery of the Wet Gas for Phase 1 from Addax, to enable work to proceed on the gas processing facility."

30. The Government did not thereafter do anything to comply with its obligation under Article 6 b) of the GSPA to -

"ensure that all necessary pipelines and associated infrastructures are installed and all requisite arrangements with agencies and/or third party are in place to ensure that supply and delivery of Wet Gas in accordance with Article 3 so as to facilitate the timely implementation of gas processing by the GPFs [gas processing facilities to be constructed by P&ID] as provided for in this Agreement."

31. The Government's obligation under Article 3 c. was to make available 400 MMSCuFD Wet Gas at the P&ID Calabar site boundary. By Appendix A it undertook to deliver a continuous supply of 150 MMSCuFD by the last quarter of 2011 and the remaining 250 MMSCuFD by the third quarter of 2012.
32. There followed discussions about the implementation of the Government's obligations but nothing came of them. The Government has never performed any of its obligations under Article 6 b). A compromise solution involving a possible variation of the GSPA was discussed but these negotiations were broken off in August 2012. P&ID served a Request for Arbitration but did not at that stage terminate the P&ID. On 20 March 2013 P&ID wrote to the Government saying that it treated the Government's continued failure to perform its obligations as a repudiation of the GSPA and accepted it as such..
33. By Procedural Order No 9 dated 6 May 2015 the Tribunal directed that the proceedings should be bifurcated and that there should first be a hearing on the question of liability and thereafter, if P&ID were successful, a hearing on damages. It directed the Government to serve "a statement of any primary facts alleged in the evidence of Mr Michael Quinn which are challenged and any other facts alleged to be relevant to the question of liability."
34. On 12 May 2015 the Government served a statement of the facts in Mr Quinn's statement which it challenged. None of them were the facts recited in paragraph 29 above. P&ID elected not to put in any further evidence and not to rely upon any of the challenged matters so far as they were denials of facts.

35. In its Part Final Award dated 17 July 2015 the Tribunal dealt with a number of defences raised on the part of the Government which are not now relevant. However, a good deal of attention was given in submissions to the fact that P&ID had not actually acquired ownership of the designated site or built any of the gas processing facilities. The written submissions of Mr Olapo Shashore, then counsel for the Government, submitted that the failure of P&ID to acquire the site and build the GPFs was a "fundamental breach" and that no gas could be delivered until this had been done.¹
36. The Tribunal's finding on this point was that the Governments obligations under Article 6 b) were not conditional upon P&ID having constructed the GPFs:²

"It would have been commercially absurd for P&ID to go to the expense of building GPFs when the Government had done nothing to make arrangements for the supply of the Wet Gas."

37. Mr Shashore also advanced a modified version of this argument, saying that P&ID should at least have acquired a site so as to enable the Government to identify the "site boundary" to which the Wet Gas should be delivered. The Tribunal said that this took the matter no further than the first version of the argument:³

"Of course the Government could not actually deliver gas until there was a Site and, as we have said, until there was a plant to receive it. But that does not excuse the Government's failure to comply with 6 b). There is no suggestion that its failure to comply with these obligations was caused by uncertainty as to where the Site was going to be. It was assumed by everyone that it would be on the land allocated in Calabar."

38. After dismissing the other defences, the Tribunal found that the Government had repudiated its obligations under the GSPA and that P&ID had been entitled to accept the repudiation and claim damages for breach.

F. REPUDIATION AND ITS CONSEQUENCES

39. The effect of the acceptance by one party of the other party's repudiation is that the primary obligations of both parties (on the one hand, to supply gas, on the other, to process it) are discharged and come to an end. But the contract "remains alive for the awarding of damages either for previous breaches or for the breach which constitutes the repudiation."⁴ Thus any obligations which P&ID had to buy the site, build the GPFs, etc. came to an end when the repudiation was accepted. There is no claim that either party committed any breach before the Government's repudiation. The present question therefore is only the damage suffered by P&ID by reason of the Government's refusal to perform the contract.

¹ Written submissions, 28 May 2015, paragraphs 17-36.

² Second Part Final Award paragraph 64.

³ Paragraph 66.

⁴ Lord Wright in *Heyman v Darwins Ltd* [1942] AC 356, 379.

G. MEASURE OF DAMAGES

40. The damage suffered by P&ID is the loss of the net income it would have received if it had been supplied with wet gas in accordance with the contract and had been able to extract and sell the natural gas liquids. The first question is whether this kind of loss is in principle recoverable or whether it is too remote. The parties are agreed⁵ that the general rule for answering this question is that formulated by Alderson B in *Hadley v Baxendale*:⁶

"[T]he damages which the other party ought to receive in respect of such breach of contract should be such as may fairly and reasonably be considered either arising naturally, i.e., according to the usual course of things, from such breach of contract itself, or such as may reasonably be supposed to have been in the contemplation of both parties, at the time they made the contract, as the probable result of the breach of it.

41. Loss which does not fall within either of these two branches of the rule is usually considered too remote.
42. The Government submitted that the loss of income from sale of the natural gas liquids could not be considered to arise naturally from its repudiation of the contract because at that time P&ID had not acquired a site or constructed the GPFs. The point is put with great clarity at the outset of its written submissions:

"In order to put the Claimant's argument in the right perspective, it is important to consider this pertinent question which flows from the Claimant's position above. Can the damages in the sum of \$8,627 billion dollars as claimed by the Claimant be regarded as a fair, reasonable and natural consequence of the Respondent's breach? We shall answer in the negative. This is based on the premise that it is not natural and in the usual course of things for the Claimant to make such profit without taking any steps towards the actualization of the contract such as building a gas facility or purchasing the land allotted to it."

43. In other words, the Government submits that damages should be calculated on the assumption that even if the Government had performed its obligations, P&ID would not have done anything more. It would not have acquired the site or built the gas facility. The fact that P&ID had not done so before the repudiation is a constant theme of the Government's submissions.⁷
44. The Tribunal considers that this submission is wrong in law. If one party (D) repudiates a contract, the other party (C) is entitled to accept the repudiation and sue for damages. The measure of damages is the sum required to put C in the position in which he *would have been* if D had performed his obligations under the contract. For this purpose it is necessary to consider not only what D was obliged to do, but also whether C *would have performed* his

⁵ Claimant's written submissions of 22 August 2016, paragraph 18.2; Government's written submissions of 24 August 2016, paragraph 1.2.

⁶ (1854) 9 Ex. 341,

⁷ The point is made in the written submissions at paragraphs 1.4, 1.9, 1.10, 1.11, 1.12, 1.15, 1.16, 1.17, 1.19, 1.20, 1.21, 1.22, 1.23, 1.24, 1.26, 1.27, 1.34, 1.38, 2.4, 2.8, 2.10, 2.11, 4.9, 4.10, 4.11, 5.2 and 5.3.

obligations under the contract. If he would not have been able to do so, he may not be able to recover more than nominal damages for the repudiation. But the question is whether he *would have performed* his obligations, not whether he had already done so before the repudiation. The Tribunal must decide this according to the evidence, the burden being upon the claimant. What would have happened is of course a hypothetical question but courts and tribunals frequently have to make such decisions.

45. These principles are clearly established in the laws of both Nigeria and England. In *Tanko v Kaduna North Local Government* the Nigerian Court of Appeal said:

"In the resolution of this issue on the assessment of damages, it is very important to note that it is a fundamental principle of our law on damages that in the event of a breach of any contract, the Plaintiff is entitled to be placed, so far as money can do it, in the same position *as he would have been in*, had the contract been performed. See: ROBINSON V. HARMAN (1848) 1 EX.850, 855 AND PIEDMOUNT PLYWOODS V. GOLDEAC (NIG) LTD (1992) 8 NWLR (PT. 260) 481 AT 491."

46. The reference to *Robinson v Harman* was to the well-known statement by Parke B:

"The rule of the common law is, that where a party sustains a loss by reason of a breach of contract, he is, so far as money can do it, to be placed in the same situation, with respect to damages, as if the contract had been performed."

47. In *Flame SA v Glory Wealth Shipping PTE Ltd*⁸ there was a question as to whether the innocent party would have performed his obligations, Teare J summarized the law:

"The assessment of loss necessarily requires a hypothetical exercise to be undertaken, namely, an assessment of what would have happened had there been no repudiation. That enables the true value of the rights which have been lost to be assessed. The innocent party is claiming damages and therefore the burden lies on that party to prove its loss. That requires it to show that, had there been no repudiation, the innocent party would have been able to perform his obligations under the contract. [But]...when assessing what the innocent party would have earned had the contract been performed the court must assume that the party in breach has performed his obligations."

48. It follows that if the evidence had showed that for some reason, even if the Government was ready and willing to perform the contract, P&ID would never have been able to acquire the site or build the plant, then it would not be able to recover more than nominal damages. So, for example, in *North Sea Energy Holdings NV v Petroleum Authority of Thailand*⁹ the buyer of a very large quantity of oil over a five year period wrongfully repudiated the contract. The seller claimed as damages the huge profit it would have made on the difference between the sale price and the price for which it expected to be able to buy the oil in Saudi Arabia. But the judge found as a fact that it would not have been able to obtain the oil from Saudi Arabia to perform its side of the contract and awarded nominal damages.

⁸ [2014] QB 1080 at paragraph 85.

⁹ [1997] 2 Lloyd's Rep 418; [1999] 1 Lloyd's Rep 483

49. In some cases the fact that a party had not done anything by way of performance of the contract for three years, as in the present case, might be evidence that it was unable or did not intend to do so. But that is not the case here. There was an obvious reason why P&ID had not started upon performance. As the Tribunal said in its second Part Final Award -

"It would have been commercially absurd for P&ID to go to the expense of building GPFs when the Government had done nothing to make arrangements for the supply of the Wet Gas."

50. In fact, the evidence shows a high degree of likelihood that if the Government had been willing to perform, P&ID would have acquired the site and built the plant. First, P&ID was fully prepared to acquire the land and start constructing the plant. Mr Quinn says in his witness statement that, starting in 2006, P&ID -

"...[42] set about the necessary preparatory engineering work required to construct a gas stripping plant capable of processing 400 MMSCuFD of Wet Gas and a polymer grade propylene plant capable of producing 250,000 metric tonnes per annum of polymer grade propylene....[47] During the course of the next two years, we made good progress and reached a very advanced stage of the preparatory engineering work necessary to implement such a project on the ground. I would estimate that the total costs sunk into the preparatory work during that period were in excess of \$40 million... [49] By the end of the first 2 years of our work on the Project, we had put together a completed engineering package ready for actual permit applications, procurement and construction...[102] The day after the signing of the GSPA, on 12 January 2010, I wrote to the Minister on behalf of P&ID to inform him that P&ID wished to commence work at once...[10] On 14 May 2010, I wrote to NNPC to update it on the progress made by P&ID. I pointed out that all of the project finance was in place, 90% of the engineering designs had been completed [and] a 50 hectare site had been allocated to P&ID by the Cross Rivers State Government..."

51. As recorded in paragraph 33 above, the Government was directed by Procedural Order No. 9 to serve notice of any primary facts in Mr Quinn's witness statement which it disputed. It did not dispute any of the matters mentioned above. P&ID thus showed every sign of being willing, indeed anxious, to implement the project and there is no dispute over its ability to have done so.
52. Upstream Commercial Advisory Limited ("Upstream"), the Government's expert witnesses, do not appear to have been shown Mr Quinn's evidence. Under the heading "Readiness Status of P&ID" they say that -

"P&ID made an investment decision based on a Class 5 estimate. This is flawed because a Class 5 estimate classification is based on two percent (2%) detail definition of the proposed project with just a notional sense of engineering deliverables. A Class 3 estimate is indeed required for Final Investment Decision... There's no mention of a detailed EPC schedule in the cost estimates."¹⁰

¹⁰ ACEE International, an international association of cost engineers, divides cost estimates in to five classes according to their degree of detail, purpose, expected accuracy and preparation effort. Class 1 is at the greatest level of detail, used to check a bid or tender. Class 5 is at the most general level and is intended for a first appraisal of a project: see AACE International Recommended Practice No 18R-97.

53. It is true that, as the Tribunal will in due course explain, P&ID's expert witness Mr Wolf had made his own Class 5 estimate by way of a check on the three earlier estimates with which he had been provided. But P&ID itself had gone a good deal further. Besides the uncontested evidence extracted in paragraph 50 above, Mr Quin had said:

"[48] By way of example, extensive work was commissioned from various specialist engineering companies such as CB&I Lummus Technology Group in New Jersey, KRAN Developments in Johannesburg and ABB Limited in the UK. The cost of the work of these three companies alone was about \$29 million. In addition our own internal costs were significant... [49] By the end of the first two years of our work on the Project, we had put together a complete engineering package ready for actual permit applications, together with a 3-D software model of the plant which was in such high detail that it would have enabled training of the plant staff even before completion of construction."

54. Secondly, the prospective profits were such as to create a substantial financial incentive to go ahead. Mr Quin estimated that the project would produce a profit of \$5 to \$6 billion for P&ID over a 20 year period.
55. Thirdly, there is no evidence of any legal or financial obstacles which stood in the way of the scheme. The Upstream report has a discussion of the "business environment" in Nigeria but there is nothing to suggest that with the co-operation which the Government had promised in the GSPA, it would not have been able to acquire the site and construct the plant.
56. Consequently, the Tribunal finds on a balance of probability that that P&ID would have performed its obligations under the GSPA and therefore did suffer loss. Furthermore, such loss flowed naturally from the Government's repudiation and was not too remote. The next step is the quantification of that loss.

H. THE CALCULATION

57. If the contract had been performed, P&ID would have received for 20 years an income from the sale of natural gas liquids extracted from the wet gas supplied by the Government. As against that income, it would have had to finance the necessary capital expenditure to acquire the site and construct the gas processing facilities ("CAPEX") and incur revenue expenditure in operating the plant ("OPEX"). The loss is therefore the value of the stream of net profit which P&ID would have made if the Government had performed the contract according to its terms. As the damages have to be assessed once and for all, it is necessary to estimate the value of that stream of profit at the time of the breach, making an appropriate discount for the fact that P&ID will be awarded immediate payment in place of sums which would actually have been received over a 20 year period. The Tribunal will in due course consider whether the valuation at the date of breach may take into account what is known to have happened since that date.

A. Expenditure

58. P&ID's expert witness on expenditure was Mr Bradley Wolf. He is an engineer with 30 years of experience in engineering, procurement and construction of complex infrastructure, power generation and commercial and industrial facilities. Mr Wolf dealt first with CAPEX and then OPEX.

(a) CAPEX

59. Mr Wolf's principal source for estimating CAPEX was the detailed engineering work which had been done by P&ID as described by Mr Quinn.¹¹ This was in his opinion, at the minimum, a Class 2 estimate in the ACEE classification.¹² In addition, in April 2013 P&ID had commissioned an independent assessment from Genesis Oil and Gas Consultants Ltd.¹³ Mr Wolf treated this as a Class 3 estimate.¹⁴ Thirdly, in October 2015 it had obtained another independent assessment from Wood Group Frontier Ltd, another well-known company offering consultancy services.¹⁵ Mr Wolf regarded this as also being a Class 3 estimate.¹⁶

60. Mr Wolf then built upon these estimates to construct his own. First, he removed the cost of plant which was additional to that required to perform P&ID's obligations under the contract. The original plans had included a propylene plant which had been abandoned by the time the GSPA was signed. This had required the use of a specialised recovery process (Randall NGL) which had the high recovery rate of the propane needed to make propylene. Genesis had therefore both dropped the Randall NGL process and substituted the AET Mehra process instead. Wood Group favoured the Russell UOP process. Mr Wolf's view was that all three processes were capable of meeting the requirements of the GPSA¹⁷ but that "based on removal rates, capital cost and operational considerations", the UOP Process was the proper selection.¹⁸

61. Based on these materials, Mr Wolf made a calculation of the probable cost, which he tested by reference to a Class 5 estimate of his own and "bench marked", i.e. compared it, with information about similar plant which had been built elsewhere. He observed in his report:

"It is important to note that this was not by any means a unique project whose costs would consequently be very difficult to predict. The project described in the GSPA was typical of many others in gas rich regions of the world. There was nothing in the project scope, cost or timetable that was any different [from] many other such projects routinely completed around the world."

62. There is nothing to show that Mr Wolf failed to take account of local conditions in calculating CAPEX, nor was it put to him in cross-examination that he had not done so. Most of the components of the plant would have been imported and their prices were unaffected by local conditions, but

¹¹ See paragraphs 50 and 53 above.

¹² BRG Second Expert Report paragraph 2.2.8

¹³ Exhibits BRG 402 and 403.

¹⁴ BRG Second Report paragraph 2.2.12.

¹⁵ Exhibit BRG 404.

¹⁶ BRG Second Report paragraph 2.2.15.

¹⁷ BRG Report, paragraph 4.6.9

¹⁸ BRG Report paragraph 4.6.11

labour costs were based on Nigerian rates.¹⁹

63. In calculating the sum which ought to be provided for contingencies, he used a programme ("@risk") which calculates the probability of deviations from estimate of each item in the budget and combines them. This has the advantage, Mr Wolf said, of taking into account "the extremely low probability that *all* of the estimated values will require the maximum contingency level."²⁰
64. On this basis, Mr Wolf produced an estimated CAPEX of \$579,990,000, which included a contingency allowance of \$65,890,000. This represented about 15% and gave in his opinion a 90% chance that the project would not go over budget.²¹
65. The chief objection of Upsteam, the Government's expert, was that Mr Wolf had inadequate material upon which to arrive at his estimate. This, as noted above, was based upon the misapprehension that P&ID had done nothing but make a Class 5 estimate before entering into the contract and that Mr Wolf had no other material upon which to make his own estimate. The report contains no comment upon Mr Wolf's contingency calculation but the final recommendation, without explanation, is that one should "assume nominal Class % CAPEX estimates + 40%."²² In cross-examination, the government's expert Mr Dare said that reflected the reliability of a Class 5 estimate.²³ In other words, it was made upon an altogether false assumption about the underlying figures.
66. The Upstream report contains no comment upon the equipment which Mr Wolf considered would be needed or any specifics of his estimate. Nor was anything of the kind put to him in cross-examination. Counsel for the Government appeared to be satisfied with his admission that he had found the P&ID materials "extremely helpful".²⁴ He was asked whether he had subjected the third party studies to an audit. He replied that he had -
- "compared the values that were presented with other ones that I have personal knowledge of or are in the public domain. So from a reasonableness standpoint, these values certainly, within my experience, I had no reason to question them."²⁵
67. Finally, Mr Wolf was asked whether his estimates were "founded on assumptions". He replied:
- "My job is to make sure they are reasonable assumptions and reflective of what...it would have cost to build a plant that would have achieved what was outlined in the facility, but all estimates are based on assumptions."
68. In his closing submissions, Chief Ayorinde said that, as a matter of Nigerian law, a "feasibility study"

¹⁹ Second BRG Report, paras 2.6.5-7.

²⁰ BRG Second Report, paragraph 2.5.11.

²¹ BRG Report, paragraph 2.1.7.

²² Final Upstream Report, p. 26.

²³ Transcript Day 1, 30 August 2016, pp. 93-105.

²⁴ Transcript Day 1, 30 August 2016, pp. 8-9.

²⁵ Transcript Day 1, 30 August 2016, p. 11.

should not be the basis for an award of damages²⁶ and that Mr Wolf, in his reliance upon the pre-contractual work of P&ID, was presenting the Tribunal with a "feasibility study". It was true that he also relied upon other material and exercised his own judgment, but his use of the P&ID papers "removes from the purity of his report."²⁷

69. The Tribunal rejects this submission. There is no authority in Nigeria or England for the proposition that an expert estimating what work of construction would have cost may not have regard to the specification of work and estimates of cost made by the person who was to undertake that work, simply on the ground that it was a "feasibility study". In the case upon which counsel relied, *Artra Industries Ltd v Nigerian Bank for Commerce and Industries*²⁸ the court said that a particular document called a feasibility study tendered in evidence had no probative value. That was true on the facts of that case. In the present case, the Tribunal is satisfied that Mr Wolf carefully examined all the available materials and exercised his own judgment. There are no grounds upon which to reject his estimate of \$579,990,000 or the adequacy of the \$65,890,000 contingency which he included within it.

(b) OPEX

70. P&ID had made its own calculations of the OPEX for the project under six heads and arrived at a figure of \$59,881,600.²⁹ Mr Wolf says that he has reviewed these costs and considers that they are reasonably accurate.³⁰ Mr Wolf was not cross-examined on this part of his evidence.
71. The Upstream Report makes no comments upon any of the six individual heads of expenditure but simply recommends that OPEX should be based on "2.5% of CAPEX with uplift of +25% to capture Niger Delta security arrangements". This produced a figure lower than Mr Wolfs estimate, but Upsteam produced an addendum in which they increased Mr Wolfs figure by 25%. Asked in cross-examination for the justification for this increase, Mr Dare said:³¹

"It did not factor in Niger Delta adjustments, it did not factor in the fact that you have Nigeria content development requirements, all of that is a way of making operations more expensive."

72. He went on to speak of condensate evaporation strategy and the cost of transporting the condensate.
73. One difficulty which the Tribunal has with these submissions is that none of it was put to Mr Wolf. The final Upstream report had spoken only of "uplift of +25% to capture Niger Delta security arrangements (i.e. hardening of the facility site with relevant Government Security Agency personnel) as well as factor-in Nigerian Content Development (NCD) compliance". The Tribunal received no evidence about the circumstances in which it is obligatory or prudent to employ "Government Security Agency personnel", or the incidence of insurgent activity against gas

²⁶ Transcript Day 2, 31 August 2016

²⁷ Transcript Day 2, 31 August 2016, p. 49.

²⁸ [1997] 1 NWLR 574

²⁹ The estimates, broken down into 6 heads of expenditure, are at paragraph 4.9.2 of the BRG report.

³⁰ BRG Report, paragraph 4.9.3.

³¹ Transcript Day 1, 30 August 2016, p. 106.

installations in the area. These are matters which must be known to the Government and on which evidence was available. But none of it was put before the Tribunal or put to Mr Wolf in cross-examination. Mr Dare, in oral evidence³² after Mr Wolf had concluded his testimony, produced a number of points which had not previously mentioned in the Upstream report or otherwise: performance would be "sub-optimal" on account of having to employ Nigerian personnel, precautions would be needed to protect the condensate before export, stolen condensate could cause pollution and the government "will come after you". The claimants had no opportunity to comment on any of these matters.

74. Mr Wolf commented in his second report:

"[2.6.3] The OPEX costs in our First Report were derived from a compilation of detailed information developed for this plant by P&ID, Genesis and the Wood Group. These studies described that the OPEX was based on information from similar projects and lease costs obtained after preliminary bids were tendered and would already have included any extra security precautions deemed prudent.

[2.6.4] Since the facility capital costs included security fencing around its defined perimeter and guarded entrances as part of the infrastructure and the OPEX estimates already considered the location, I believe that no specific additional uplifts to OPEX costs for "Niger Delta security arrangements" especially since the risk of disruption, to the extent that it exists, is likely more prevalent to the incoming pipeline which in this case is the responsibility of the respondent."

75. The Tribunal considers that it has no satisfactory basis for deciding that Mr Wolf did not take into account factors which would increase the OPEX by 25% or any other figure. They accordingly accept his figure.

B. Income

76. An estimation of future income requires a calculation of (a) the yield of NGLs which the plant would have recovered from the incoming gas and (b) the prices at which they could have been sold. The resulting figure must then be discounted to allow for the award being for an immediate lump sum rather than income spread over 20 years.

(a) Yield of NGLs

77. The expert witness for P&ID on this point was Mr Anthony Melling of BRG. He has general experience in the gas industry and specializes in natural gas, LNG and associated liquids. The first part of his estimate was concerned with identifying the content of the gas stream which the Government was required to supply under the GSPA. As the Government could supply gas meeting the contract specification from anywhere it chose, this meant having to identify the content which such gas was most likely to have. P&ID had information about the gas quality from OML 123 in May

³² Transcript Day 1, 30 August 2016 pp. 111-113)

2008³³, but considered that this was out of date and based upon insufficient volumes.³⁴

78. Instead, Mr Melling constructed from information derived from the Department of Petroleum Resources and NNPC a "Typical Composition of Nigerian Gas." The minimum propane and butane contents specified in the GSPA were 3.5 and 1.8 mol per cent respectively. Accordingly, Mr Melling produced a "Minimum" yield by adjusting the typical composition so that it had no more than the contractual requirement of C3+ liquids.
79. He did not however consider that a composition producing the minimum yield was the most likely. The GSPA provided that the Lean Gas was to be 85 mol% of the Wet Gas provided. This suggested that the parties contemplated that P&ID would be left with 15% for NGLs, fuel gas and other losses. On this assumption, Mr Melling produced a higher figure for what he called the "Expected" yield.
80. Mr Melling also produced a "Maximum" case in which more NGLs could be obtained from a richer feedstock which was still consistent with the contractual specifications.
81. For the purpose of calculating an annual yield in metric tonnes, Mr Melling assumed (a) that the Russell UOP plant assumed by Mr Wolf would be operational for 93% of the available time (340 days a year) with maintenance in parallel with maintenance at the end user plant (b) 4% of the energy content of the feedstock gas would be used as fuel gas (c) the production efficiency of propane and butane extraction would be 94% and (d) the process efficiency would be 90%, the rest of the propane, butane and condensate being lost to evaporation or flaring.
82. On this basis, the annual sales volumes in metric tonnes would be:

Minimum yield: 491,037

Expected yield: 811,000

Maximum yield: 1,245,739
83. The Upstream report said that the use of a typical rather than absolute composition was "unacceptable".³⁵ It noted, however, that its own analysis of the only actual field data available, namely the OML 123 figures for 2008, had produced an annual yield of 838,437 metric tonnes, i.e. slightly more than Mr Melting's Expected yield. The Tribunal does not accept that Mr Melting was wrong to start from a typical composition. As the GSPA did not say from which field the Wet Gas had to come, an estimate of what was likely to have happened if the Government had complied with its obligations required him to say what the composition of the gas was likely to have been. For this purpose, it was right to start with the typical composition of Nigerian gas.
84. The only one of Mr Melting's assumptions which the Government contested was the 93% operational time. Mr Dare said one should rather assume it would operate only for 40%, or perhaps 45%, or 50% of the time.³⁶ The Upstream report said 50% and eventually Mr Dare said he would stay

³³ Table 17 at paragraph 5.3.2 of the BRG Report.

³⁴ Ibid, paragraph 5.3.3

³⁵ Upstream Report p. 20

³⁶ See Transcript Day 1,30 August 2016, pp. 113-115.

with that figure. The reason given in the report was "unabated militancy in the Niger Delta...on account of the firm nexus between AG production and oil production performance (militancy activities are primarily targeted at disrupting oil export.)"

85. Even assuming that the GSPA was about exporting oil, a 50% reduction in operating time would have been a remarkable figure. The Upstream report offers no actual evidence of (1) the incidence of militant attacks in the Calabar region and its effect on oil production (2) if the attacks were against oil pipelines, how this would affect the production of associated gas at the wells (3) whether there had been any interference with gas pipelines.
86. The comment in the Second BRG Report by Mr Melting was:

3.6.2 I am aware of course of the problem of militant attacks on oil and gas infrastructure in the Niger Delta, which have a variety of reasons. However it is my understanding that this problem manifests itself in the West and North West of the Niger delta region rather than the South East, where Calabar is located. This is borne out by material in the public domain.

3.6.3 The E1A state that this militant group is the most active in the region. Appended to this report is a map plotting the locations of all of the attacks by the Niger Delta Avengers reported by the online publication "Ventures Africa" in 2016.⁶ This map indicates that militant attacks are focused around Warri and to a lesser extent around Brass, at the mouth of the Niger Delta. Calabar is hundreds of kilometres to the East of this region.

3.6.4 Nigerian Oil Spill Monitor provide a map of spills in the Niger Delta area, indicating where they are caused by third parties.⁷ Almost all spills caused by third parties are found to the west of Calabar.

3.6.5 My conclusion is further supported by the 2015 Annual Report of Seven Energy, the leading integrated gas company in south east Nigeria. Seven Energy has operations in 3 locations in the Niger Delta - in the North West (around Warn), in the Anambra Basin, and in the South East, in an area encompassing Port Harcourt and Calabar.

3.6.6 The Seven Energy Annual Report specifically discloses the militancy affecting operations in the North West Delta - see page 13 - referring to "considerable interruption due to sabotage and damage caused to the Trans Forcados Pipeline". (The Trans Forcados pipeline is a crude oil pipeline in the North West Niger Delta which was bombed in February 2016). However, in the Operational Report for the South East Delta region (pp 34-37 of the Seven Energy Annual Report) no mention is made of any operational interruption due to militancy.

3.6.7 I further note that according to its 2015 Annual Report Seven Energy is actively supplying lean gas to power plants in the Calabar region. A more recent update reporting on the first quarter of 2016 states: "During the first quarter of 2016, Seven Energy gas deliveries in the south east Niger Delta averaged 101 MMcfpd (Q1 2015: 44 MMcfpd). The 44% increase from the 2015 average gas deliveries of 70 MMcfpd was due to the increase in gas taken by the Calabar NIPP and Alaoji NIPP power stations as they increase their electricity generation into the power grid."

3.6.8 Finally, the US Department of Energy, Energy Information Agency provide data that can be used to give a rough estimate of the level of disruption to Nigerian oil production due to

militancy. Their data shows that, prior to 2016, approximately 13% of oil production was not achieved due to militancy. Only in 2016 did increasing militancy cause greater disruption, with disruption increasing to approximately 32%. This is not analogous to the outages that one might expect in a single NGL facility in an area relatively unaffected by militancy, but it shows that an assumption of 50% downtime due to militancy over the life of a project from 2015 onwards is wholly unrealistic (even for the part of the industry most effected by attacks).

3.6.9 In summary, I am not aware of any sensible foundation to support the assumption that the P&ID plant would have suffered 50% downtime, as suggested by Upstream. As stated above, I believe that my uptime assumption of 93% is realistic.

87. There was no attempt in cross-examination to discuss or challenge any of this information.
88. The Tribunal therefore considers it highly implausible to assume that a gas stripping plant, situated in an area away from the main focus of militant attacks, will be out of commission for 10 out of its 20 years of operation.
89. In any case, the Upstream calculation is based upon a misapprehension, evident throughout the report and the submissions on behalf of the Government, about the nature of the calculation which the Tribunal has to make. It fails to appreciate that the calculation must be made on the assumption that the Government will perform its obligations under the contract. Except so far as the Government would be entitled to plead *force majeure* (as to which no argument was presented to the Tribunal) it must be assumed to have delivered the necessary quantities of Wet Gas to P&ID's site and taken the Lean Gas for its power stations. If militancy makes it difficult to obtain the gas from one field, it must find the gas somewhere else.
90. The Tribunal finds that Mr Melting's assumption of 15 days of downtime for maintenance and other eventualities during the year is the one most likely to be correct.

(b) Price of NGLs

91. The price of NGLs is closely linked to the price of oil which is, like that of most commodities, cyclical - sometimes dramatically so. It is not easy to predict the future movement of prices. But such predictions have to be made, because investment decisions depend upon them. Likewise, they have to be made by the Tribunal to determine the loss which has been caused to P&ID by the repudiation of the contract.
92. There is a preliminary point of principle which needs to be decided. Is the appropriate prediction that which would have been made at the date of acceptance of the repudiation, i.e. March 2013, or should it be what would be predicted now, i.e. at the date of the hearing? P&ID's expert witness on this aspect of the case, Mr Simon Ede, has prepared calculations on both bases.
93. The Tribunal considers that the correct approach is to take into account all the information

available at the hearing. This is the trend of recent decisions of the English courts on questions which involve predictions: see *The Golden Victory*³⁷ and *Bunge SA v Nidera BV*³⁸. Mr Ede says of his 2015 calculation of the loss suffered by P&ID by the 2013 repudiation:

"I take the actual 2015 prices...I assume that the price fall of 2014-15 is completely foreseen and future expectations...about long term oil prices [at the hearing date] are similarly known."

94. This appears to the Tribunal to be the right approach.
95. Mr Ede made two assumptions about how P&ID would sell its NGLs which are not challenged. First, he assumed that they would be sold f.o.b Nigeria into the north west European market. So he took into account the cost of shipping the liquids to Europe. Secondly, he assumed that NGL prices would closely follow oil prices.
96. The experts differed, however, in their forecasts of oil prices. Mr Ede based his first estimate, made in 2015, upon predictions published by the International Energy Agency ("IEA") available in 2013. Upstream did not produce an independent calculation but said that Mr Ede's estimate should be uniformly reduced by about 38% to reflect the fall in oil prices which had occurred since 2013. Mr Ede's second estimate, based on the principles stated above and an IEA forecast published in 2015, averaged about 24% lower than his first forecast.³⁹
97. The 2015 IEA report, upon which Mr Ede chiefly relied, contained four different scenarios which might affect future oil prices. They were (1) the New Policies scenario, described as "the central scenario of this Outlook", which assumed that all policies affecting the energy market which had been announced would in fact be implemented (2) the Current Policies scenario, which assumed that only policies currently in force would continue (3) the 450 scenario, which assumed that policies to reduce the rise in long term average temperature, caused by greenhouse gases, to 2°C would be implemented (4) a Low Oil Price scenario, assuming no reduction in supply and reduced demand because of slow economic growth. The report said that the Low Oil Price scenario was unlikely in the long term because lower prices were likely to result in increased demand.
98. Mr Ede adopted the New Policies scenario for his second estimate. He was not cross-examined on this estimate, save to secure the admission that forecasting oil prices 20 years ahead was difficult. However, when Mr Dare gave oral evidence, he said that there were several forecasts available on web sites which were different from the New Policies scenario. He did not however identify these or produce them to the Tribunal. The Tribunal did not have the benefit of Mr Ede's comments because none of this material (if such it was) had been put to him in cross-examination.
99. It is important to identify precisely the exercise which the Tribunal has to undertake. It is to make the best estimate which would be made today of the income stream which P&ID would have received from the sale of NGLs if the Government had performed its side of the bargain. The actual outcome will not be the same as the prediction. It is bound to be, to a greater or lesser extent, higher or lower. But this is, by definition, something which the Tribunal cannot know. One method

³⁷ [2007] 2 AC 353

³⁸ [2015] Bus LR 987.

³⁹ As it happens, since Mr Ede's second report the price of Brent crude has increased from US\$48 a barrel to US\$55 a barrel.

sometimes adopted for making the necessary calculation is to ask what a third party would have paid to acquire the benefit of the GSPA on the assumption that the Government would definitely perform its obligations. The notional third party would have decided what he should pay by making the same calculations as to what the income he would be likely to receive. Putting the question in this way has the advantage of drawing attention to the fact that the value of future income depends upon the estimate which a notional buyer and seller would make today. That is what determines the present value of what P&ID has lost. Someone who makes a higher or lower prediction may be able to say "I told you so" in years to come, but that does not affect the value which would now be attached to the future income stream. The duty of the Tribunal is to decide on the evidence what that estimate would be likely to be. It is not to increase or reduce that estimate according to its own intuition.

100. The only estimates of what might happen to oil prices that the Tribunal has actually seen are those in the IEA report relied upon by Mr Ede. IEA, says Mr Ede -

"is an intergovernmental organization that provides reporting and analysis on international energy markets. Included in their work is analysis of future trends and developments in the oil and gas industries and as such they regularly publish forecasts of prices for these commodities. Companies operating in the oil and gas industries regularly make use of IEA forecasts when benchmarking price forecasts and analysis. I believe that this is...reasonable."

101. Mr Ede is an economist who has for 15 years specialized in energy markets. His evidence is that IEA's New Policies scenario is the one most appropriate to be used in forecasting. None of this was challenged in cross-examination.
102. By contrast, Mr Dare has said only that there are other forecasters in the business who have arrived at different but unspecified conclusions. No such forecasts were actually made available to the Tribunal, still less to Mr Ede.
103. The Tribunal considers that there is no material upon which it can come to a conclusion different from that of Mr Ede's second estimate, which gave effect to all the information presently available about the movement of oil prices. Accordingly it accepts the forecasts of prices (in real 2013\$ terms) in the second BRG Report:⁴⁰

(c) Taxation

104. Clause 8 h) of the GSPA provided that P&ID would enjoy "Pioneer Status", i.e. freedom from taxation, for a period of 5 years from the commencement of commercial operations. The BRG Report therefore assumed that the P&ID income stream would not be taxed for the first 5 years but would thereafter pay tax at the standard rate of 30%.⁴¹ The Upstream report assumed a rate of 20% without any period of exemption,. This produced a slightly lower deduction than the BRG estimate.

⁴⁰ Figure 6 in paragraph 4.5.6.

⁴¹ BRG Report, paragraph 7.2.2 (VI) and (VII).

105. The Upstream Report contains no explanation of why it (a) ignored the 5 years Pioneer Status granted by the GSPA and (b) reduced the standard rate of tax to 20%. In the circumstances the Tribunal will accept the BRG calculation, which in fact results in a lower award of damages than the Upstream calculation.

(d) Discount rate

106. The total net profit which P&ID would have received over 20 years must be discounted to reflect early payment, just as interest is added to damages to reflect late payment. Of course in the valuation of a business, estimated future earnings may also be discounted to reflect the risk that they will not materialise. The Government submits that such a discount should also be applied to the estimate of future profits in this case, to reflect the risk of investing in Nigeria. For this purpose, as well as the time value of money, Upstream proposes a discount rate of 7%.
107. P&ID on the other hand say that a discount for risk is in principle wrong. If one is valuing a business where the future profits depend upon performance by the Government in the Nigerian environment, the main risk is that for one reason or another the Government will not perform its obligations, as indeed happened in this case. If P&ID was selling its rights under the GSPA to a third party, that risk would be foremost in the minds of the parties to the negotiation. But the law does not permit damages for breach of contract to be reduced to allow for the risk that the party in default will default. As for other risks, these have already been built into the calculation of future income: there are contingency allowances for CAPEX and OPEX and the possible variations from the assumptions about future oil prices may be up or down, thus cancelling each other out. P&ID therefore submits that a deduction for risk would be a double deduction. The BRG report says that US Treasury bonds are regarded as risk free and their 2.65% rate of interest represents only the time value of money. It is therefore the appropriate discount rate to use in this case.
108. The Tribunal considers that P&ID is right for the reasons stated in the last paragraph. A 7% rate would constitute a double contingency allowance or allow the Government a reduction to reflect the risk of its own default or both. 2.65% is the correct rate. On the other hand, for the reasons given by the Government, 7% is the correct rate of interest to apply to the Government's obligation to pay damages which crystallised at the date of repudiation. It is not a risk free rate but reflects what P&ID would have had to pay to borrow the money or could have earned by investment in Nigeria.

(e) Mitigation

109. The Government submits that only three years loss of income should be taken into account because by that time P&ID should have found some other profitable investment and thereby mitigated its loss. There is no suggestion of what this other investment would have been. Nor is there any explanation of why, if found, this would have mitigated the loss caused by repudiation of the GSPA. Even if P&ID could have found some other unspecified investment opportunity, there is no reason why this should be treated as mitigation of its loss. An employee who is dismissed can mitigate his loss by finding another full time job. But there is no reason why P&ID should not have pursued more

than one investment opportunity. The burden of proving that loss could have been mitigated is upon the party who has broken its contract: see *Roper v Johnson* (1873) LR 8 CP 167; *Geest plc v. Lansiquot* [2002] 1 WLR 3111 (Privy Council). The Government has not suggested, let alone proved, what the Claimant might have done to earn the equivalent profit. This is not surprising because the law does not require the innocent party to take risks in an endeavour to save the party in breach from having to pay damages: *Banco de Portugal v Water low & Sons Ltd* [1932] AC 452 at 506 (Lord Macmillan). For all these reasons, the Tribunal considers that in this context the argument as to mitigation is misplaced.

C. Conclusion

110. The effect of the Tribunal's decisions on what P&ID's expenditure and income would have been if the GSPA had been duly performed is that the net present value of the profits which would have been earned is \$6,597,000,000.⁴² This is the measure of damages. It is a very large sum because (a) it is the present value of income which would have been earned over a long period and (b) the GSPA would have been very profitable for P&ID and (although the Tribunal has not had to make any findings on the point) probably for the Government as well.

I. COSTS

111. Clause 20 of the GSPA provides that the parties are to bear the costs of the arbitration equally but that each party is to bear its own lawyer's fees. There has been no application by either side in respect of the costs of the arbitration and the Tribunal assumes that they have been borne equally.

J. DISPOSAL

112. We, Leonard, Lord Hoffmann and Sir Anthony Evans, having read the parties' written evidence, pleadings and submissions and having heard their oral evidence and submissions, and having carefully considered the same and for the reasons stated above, make our Final Award as follows, namely we order the Respondent to pay to the Claimant the sum of \$6,597,000,000 together with interest at the rate of 7% from 20 March 2013 until the date of this award and at the same rate thereafter until payment.

⁴² See Second BRG Report, Appendix H.