SUBMISSION 14: Response to Halcrow Pacific Issues Report / Request of Information

[redacted]

Date Submitted: 15 June 2010

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1. INTRODUCTION

1.1. On Friday 4 June 2010, the Economic Regulation Authority (**ERA**) issued DBP with an Information Request (**Information Request**) to assist in the assessment of the proposed revisions to the Access Arrangement. DBP has been provided with two documents outlining the Information Request's requirements:

(a) Report prepared by ERA consultants Halcrow Pacific Pty Ltd (**Halcrow Report**); and

(b) DBP's confidential tariff model with highlighted areas indicating requests for further information.

1.2. The ERA have asked DBP to provide a response by Tuesday 15 June 2010 and advised that Halcrow Pacific intend to meet with DBP management during the week commencing 21 June 2010.

1.3. DBP, during phone conference on Wednesday 9 June, advised the ERA that in the time provided, 6 working days, it will not be possible to provide everything that has been requested. Given the above issues, we think it would be more appropriate that:

(a) the ERA provide us with more time to clarify the issues with the Information Request;

(b) allow more time for the information to be provided before a meeting is held with Halcrow and DBP;

(c) defer the meetings with Halcrow by at least a fortnight so that most of the information can be provided before hand.

1.4. This submission will detail DBP's response to the Information Request that is possible to be provided in the time specified by the ERA. DBP will endeavour to provide all relevant and reasonable materials requested in the Information Request as soon as practicable. Where information is still to be provided it is stated in this submission.

1.5. Additional information required as part of the tariff model is provided to the ERA in an updated MSExcel file, a copy of which is appended to this submission. However, note that there is still further information that has been requested that will be provided as it come to hand.

1.6. Before DBP responds to each request in the Information Request, there are a number of overarching concerns DBP has with the nature and type of information being requested. These concerns are outlined in section 2 of this submission.

1.7. The sections of this submission that follow section 2 are structured using the same structure used in the Halcrow Report. That is:

(a) Section 3 deals with the general information in item 1

(b) Section 4 deals with the Historical capital Expenditure information sought in item 2

(c) Section 5 deals with the Stay-in-Business Capital Expenditure information sought in item 3

(d) Section 6 deals with the Forecast Capital Expenditure information sought in item 4

(e) Section 7 deals with the Stay-in-business Capital expenditure (2011 to 2015) information sought in item 5

(f) Section 8 deals with the Historical Operating Expenditure information sought in item 6

2. OVERARCHING CONCERNS

2.1. DBP has a number of overarching concerns with the nature and type of information being requested in the Information Request:

(a) The information relating to operating and capital expenditure is significantly more detailed than that which has been provided to the ERA in prior AA approvals processes. Moreover, it is noted that this detail enabled the ERA to approve the proposed capex and opex applying criteria under the Gas Code which is almost the same as the criteria in the NGR

(b) The ERA has consistently indicated to DBP that it has always provided to the ERA significantly more information to it compared to other pipelines. So this request comes as a significant surprise to DBP.

(c) The level of detail being requested does not reflect the level of discretion that the ERA has in relation to assessing operating and capital expenditure – as limited discretion matters, the ERA is not required to consider a more appropriate alternative if it does not believe that DBP's proposal does not meet the criteria

(d) If the ERA is to rely on this information in assessing the proposed revised AA, then it is relying on significantly more information than DBP's board of directors would rely on in approving capital and operating expenditure, even for the first year of the access arrangement period.

(e) Generally, questions raised by Halcrow are vague in nature and therefore it is difficult to ascertain appropriate responses.

2.2. In light of the above, DBP requests that the ERA reconsider whether the level of information being requested is necessary to enable it to perform its statutory functions under the NGL and NGR.

2.3. Having said that, DBP is prepared to provide some of the information in order to continue its traditional approach of assisting the regulator with its assessment process. However, there is some information which is either:

(a) not able to be provided because it is not in DBP's possession; or

(b) not relevant to the statutory functions or powers that the ERA is required to perform or exercise in assessing the proposed revisions to the access arrangement.

3. GENERAL INFORMATION REQUESTED

3.1. The Halcrow report has outlined some general information which it requires, as outlined in the following table.

Item	Description	Comment
1	General	
1.1	Please provide a copy of the Asset Management Plan	To get an understanding of the asset management strategy adopted by DBP including the infrastructure replacement strategy.
1.2	Please provide a copy of the Safety Case.	To get an understanding of the safety regime.
1.3	Please provide a copy of the capitalisation policy.	To understand what is capitalised versus operating expenditure.
1.4	Please explain how DBP has entered into an Alliance arrangement with a service provider.	To get an understanding of how DBP has gone to the market to put into place an Alliance arrangement.
1.5	Please provide a copy of the IT strategy document for both the current period and the forecast period.	To get an understanding of the IT strategy for the $[redacted] adopted by DBP including the replacement plan and the adoption of new technology.
1.6	Please provide details of the costing methodology adopted for the 2010 capital expenditure and the rationale justifying the projects.	To understand how the 2010 capital projects have been derived and costed (It is acknowledged that this request could be covered in the Asset Management Plan).
1.7	Please provide details of the costing methodology adopted for the 2011 to 2015 capital expenditure and the rationale justifying the projects.	To understand how the 2011 to 2015 capital projects have been derived and costed (It is acknowledged that this request could be covered in the Asset Management Plan).
1.8	Please provide details of the pipeline modelling used in determining the pipeline augmentation required and the timing of the augmentation.	To get an appreciation of the methodology used to determine the extent and timing of the augmentation.
1.9	Please provide the inflation factors that have been used in the forecast capital.	To be able to convert the costs to real dollars ($)

Response to 1.1 – Asset Management

3.2. In response to request 1.1 DBP provides the following:

(a) Asset Operating Strategy (attachment *TEB-001-0022-01 Asset Operating Strategy Rev 4.pdf*)

(b) Asset Management Plan (attachment *TEB-001-0024-01 Asset Management Plan Rev 4.pdf*)

(c) Asset Maintenance Plan (attachment *TEB-001-0026-01 Asset Maintenance Plan Rev 3.pdf*)

(d) Asset Reliability Management Plan (attachment *TEB-001-0029-01 Asset Reliability Management Plan Rev 3.pdf*)

Response to 1.2 – Safety Case

3.3. DBP's Safety Case is a significant document (in excess of 270 pages), most of which could not reasonably be said to be necessary to enable the ERA to perform or exercise its statutory functions or powers. There are a number of parts to the Safety Case, being a foreword, introduction, facility description, safety management system and formal safety assessment. Accordingly DBP has enclosed the following parts of the Safety Case. Copies of the remaining parts will be shown to Halcrow at the meeting sessions:

(a) 1.2 a Safety Case Chapter 0 - Foreword Rev J 020210

(b) 1.2 b Safety Case Chapter 1 - Introduction Rev J Dated 020210

3.4. It should also be noted that DBP's Safety Case is currently in the process of being updated as a requirement under the new *Petroleum Pipelines (Management of Safety of Pipeline Operations) Regulations 2010* that came into effect on 15 May 2010.

Response to 1.3 – Capitalisation policy

3.5. DBP's accounting policy relevant to capitalisation of costs are provided (attachment *1.3 a Fin-03-010 Property, Plant & Equipment Policy)*

3.6. DBP's accounting policy is based upon Australian Accounting Standards Board document 116 (AASB 116) provided in attachment *1.3 c AASB116_07-04_COMPjun09_07-09.*

Response to 1.4 - Alliance Contracting

[redacted]

3.8. In addition to explanation already provided, DBP provides its tender procedure document as attachment *1.4 a DBP-CM.01.03 - Tender Procedure.doc.* DBP refers Halcrow to section 5.1.

3.9. Further explanation will be provided as part of the proposed workshops with Halcrow.

Response to 1.5 – IT Strategy

3.10. DBP does not have all historical IT strategy documentation given they are not in its' possession. However, DBP is working with its IT service provider to obtain relevant documentation.

3.11. DBP's 2009-2010 IT Service Plan is provided as attachment *1.5 a 2009-10 DBP IT Service Plan Final v0.15.* DBP's IT strategy is outlined in Section 4 of the document

3.12. DBP's IT Service Plan for 2010 - 2011 is provided in attachment *1.5 b DBP IT Service Plan 2010-2011 merged v15(signed).v17.doc.* DBP's IT strategy is outlined in Section 4 of the document

Response to 1.6 & 1.7 – Costing Methodology

3.13. Costing methodology is part of DBP's overall project review process. DBP's Project Review Committee (PRC) is responsible for considering and recommending all stay-in-business capital expenditure and capital expenditure projects to the board. As part of that process there is a detailed identification and costing of projects. The following documents describe the functions of the PRC and the relevant business process relevant to project costing methodology.

3.14. DBP's SIB business process map it provided as attachment 1.6 b *SIB Business Process.pdf*)

3.15. DBP SIB project review and approval process is managed by a Project Review Committee. Its responsibilities and activities are outlined in the committee charter (*attachment 1.6 b PRC Charter_Final.pdf*)

3.16. A presentation outlining the PRC guide provides further context to the committee and DBP's business process (attachment *1.6 d DBNGP Minor Project Review 2009.ppt)*

Response to 1.8 – Pipeline modelling

3.17. DBP refers Halcrow to the Expansion Assumption Books provided as attachments 19 and 20 of Submission 9.

3.18. Pipeline modelling for the DBNGP is an extremely complicated process and accordingly DBP considers Halcrow would be better served by DBP management taking them through the process at the proposed workshop and then providing any relevant documents subsequent to that session.

Response to 1.9 – Inflation Factors

3.19. Values have been escalated at 2.5% year on year during the forecast period.

4. HISTORICAL CAPITAL EXPENDITURE

4.1. The Halcrow report has outlined specific and general information which it requires for the actual capital expenditure incurred in the period 2005 to 2010, as outlined in the following table.

Item	Description	Comment
2	**Expansion Capital Expenditure (2005 to 2010)**	
2.1	Please provide the actual gas quality reading since 2005.	To understand the impact of the actual versus minimum specified gas quality.
2.2	In *Submission 9*, section 9.4, DBP advised that it has used a different ledger for recording different actual expenditure. What is the difference in to the previous ledger that makes it difficult to reconcile the information provided to the ERA in 2005.	To be able to make comparison of the actual versus forecast provided in 2005.
2.3	In *Submission 9*, section 9.10, in respect to the FEED study, DBP indicated that the cost included both internal and external feed consultant cost. Please provide supporting information to show that the internal cost has not also been included in the operating cost or in the overheads.	To ensure that there is no double counting in the capital project cost.
2.4	In *Submission 9*, section 9.18, DBP indicated that duty is payable at 5% of the cost of pipe. Please provide supporting information that shows that DBP is required to pay the duty.	To justify the cost of the purchase of the pipes.
2.5	*Submission 9*, section 9.19 states that interest costs during construction have been included. Please provide a spreadsheet showing how the interest charges have been included in the construction costs.	To understand the impact of the interest charges on the construction costs.
2.6	*Submission 9*, section 10.38 discusses how the effect of HHV and Wobbe index experienced since 2005 has impacted on DBNGP capacity and DBP's ability to meet its existing contractual obligations. Please provide information on the variability of the HHV and Wobbe index and the impact on DBP's ability to meet its contractual obligations. Please detail the number of incidents that have occurred. Please indicate whether DBP has incurred additional costs as a result of this issue.	To understand the impact of HHV and Wobbe index on DBP expansion program.
2.7	*Submission 9*, section 11.10 states that increased electric power generation capability will be required and, as such, existing gas engine alternators have to be replaced. Please advise whether the existing units have been disposed of or sold. If sold please indicate the sell price of these items.	Understand the materiality of the sale of the alternators.
2.8	Additional data to support *Submission 9*, Attachment 12 Audit Report Capex Stage 5A is requested.	Attachment 12 is a table – are there any BDO Audit Reports or documents to support the figures?
2.9	Is there a document covering Stage 5B Looping - Design Basis?	It is understood that the Stage 5B design was closely based on Stage 5A.
2.10	Is there a document covering Stage 5B Compression - Design Basis?	It is understood that the Stage 5B design was closely based on Stage 5A.
2.11	Explanation of *Submission 9*, Attachment 15 - Stage 5 Technical Review, 29 June 2006 is required.	Capacity figures, stages, scope of work appear to be different to other documentation?
2.12	Please provide financial audit report for the expenditure for Stage 5B for the current period.	
2.13	Please explain what is included in the DBP overhead cost and the AAM margin costs on overheads in the table in section 11.12	Understand what is included in the overheads and margin.

2.14	In *Submission 9*, section 17.13(b), DBP states that it has informal supporting information from a number of reputable consulting firms that the project management fees are in accordance with accepted industry practice; and in section 17.13(d) say that recent market information (publicly available) shows (i) that it is accepted industry practice for project management fees to be included into contracts for infrastructure construction, and (ii) that the 3% fee compares favourably with other fees payable in similar circumstances. Please make this information available for review.	To provide an improved understanding of these fees and their applicability to the capital programs.

Response to 2.1 – Gas Quality

4.2. Actual gas quality was provided as an attachment to submission 9 of DBP supporting submissions filed with the ERA 1 April 2010. That graph is provided as attachment *2.1 a Gas Composition Post July 2005*

Response to 2.2 – Project Ledgers

4.3. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.3 – Consultant Costs

4.4. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.4 - Duty

4.5. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.5 – Interest Costs

4.6. In response to 2.5, DBP provides the following accounting standards that inform the basis to which it handles interest costs:

(a) *Attachment 2.5 a AASB139_07-04_COMPdec09_01-11*

(b) *Attachment 2.5 b AASB123_06-07_COMPjun09_01-09*

4.7. Attached *2.5 c 1005 06 Stage 5B Capitalise Interest* further illustrated how interest charges have been applied.

4.8. The spreadsheet contains out workings that reconcile monthly costs as opposed to term facilities which usually occur on a 3 monthly basis. DBP would like to demonstrate to Halcrow how this spreadsheet works.

Response to 2.6 – Out of Specification Gas Instances

4.9. DBP refers to information already provided in Submission 9, attachment 4 also provided in this submission as attachment *2.1 a Gas Composition Post July 2005*

4.10. One instance of out of specification gas has occurred in 2010, 3 in 2009, 4 in 2008 and 2 during the period April to December in 2007.

Response to 2.7 - GEAs

4.11. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.8 – 5A Capex Audit Report

4.12. Given that some of the invoices for Stage 5A are yet to be entered into the system DBP is yet to be provided with a final audit report.

4.13. DBP management has provided all audit material it has in its possession. Refer to Submission 9, Attachment 12 Audit Report Capex Stage 5A.

4.14. In addition DBP provides engagement letter with BDO regarding the Audit work (attachment *2.8 Engagement Letter Feb08.pdf*)

Response to 2.9 – 5A Looping

4.15. In response to request 2.9, DBP provides the Stage 5B Looping Design Basis (attachment *2.9 DBPL00-501-0701-01 Rev B Looping Design Basis.pdf)*

Response to 2.10 – 5B Compression

4.16. In response to request 2.10 DBP provides the Facilities Design Basis (attachment *2.10 CS00-501-0722-01 Rev A Stage 5B Facilities Design Basis CS1-9.pdf)*

Response to 2.11 – Stage 5 Technical Review

4.17. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.12 – 5B Audit Report

4.18. In response to request 2.12 DBP attaches the audit engagement letter for stage 5B (attachment *2.12 Engagement Letter Stage 5B October 2009.pdf)*

4.19. As DBP have advised to the ERA audit report for Stage 5B has not yet been issued as work is still pending.

Response to 2.13 – Overhead Costs

4.20. DBP is in the process of collating this information and is working with its project manager and will be made available as soon as possible.

Response to 2.14 – Project Management Fees

4.21. Please refer to Submission 9 specifically attachments 26.

5. STAY-IN-BUSINESS EXPENDITURE (2005 TO 2010)

5.1. The Halcrow report has outlined specific and general information which it requires for the stay-in-business expenditure incurred in the period 2005 to 2010, as outlined in the following table.

Item	Description	Comment
3	**Stay-in-Business Capital Expenditure (2005 to 2010)**	
3.1	Computers – [redacted] in 2007; please provide details of the $[redacted] (eg. design, procurement, installation, overheads etc) and the business case.	To understand the different components of the costs for the relocation of the control room.
3.2	Motor Vehicles – Please provide a copy of the vehicle replacement policy and outline the types of vehicles included in the cost category.	To get an appreciation of the frequency of vehicle replacement.
3.3	SCADA – Please provide a copy of the SCADA strategy prepared in 2006.	To understand the justification for the upgrade.
3.4	SCADA – In 2010, there is a cost of $[redacted] please provide details of the project scope, details of the cost and business case.	Explanation in *Submission 10* is not clear in respect to what is proposed for 2010.
3.5	CCTV – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case for the project.	No details of the project were provided in *Submission 10*.
3.6	Software – Please provide the scope of works, details of the cost of $[redacted] in 2010 and the business case for the Maximo project	Project was only shown as Corporate system in *Submission 10*.
3.7	Compression – Please provide a copy of the replacement philosophy adopted for compressors.	To get an understanding of the frequency of replacement.
3.8	Compression – CS6/2 Nuova Pignone Low Pressure Turbine replacement at a cost of $[redacted] in 2009. Please provide scope of works, details of costs and business case.	To understand the scope of works and the cost.
3.9	Compression – CS2/2 Solar Mars 100 cost $[redacted] in 2009. Please provide scope of works, details of costs and business case.	To understand the scope of works and the cost.
3.10	Compression – CS8/2 Solar Mars 100 cost $[redacted] in 2009. Please provide scope of works, details of costs and business case.	To understand the scope of works and the cost.
3.11	Compression – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case for the projects.	No details of the project were provided in *Submission 10*.
3.12	Microwave – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case.	To understand the scope of works and the cost.
3.13	DBNGP Signage – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case.	To understand the scope of works and the cost.
3.14	Compressor Station Pipework – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case for the project/s.	To understand the scope of works and the cost.
3.15	Transition Costs – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case for the project/s.	To understand the scope of works and the cost.
3.16	Coating and Earthing Replacement – Please provide scope of works, details of the cost of $[redacted] in 2010 and the business case for the project/s.	To understand the scope of works and the cost.

5.2. DBP provides the following in respect to the items in the table that it has been able to collate in the time available. It is still in the process of collating material for the remaining items which will be provided when they come to hand.

Response to 3.1 - Computers

5.3. The GHD House lease expired at the end of August 2006 with only one extension available, a three year option for both levels 5 & 7.

5.4. With the lease expiry comes a requirement to determine the most suitable risk mitigation strategy for the control centre. As there is only a there year option available on accommodation, the condition of supporting infrastructure and accommodation requirements for the control centre are required to be considered together with other DBP operation and project requirements over this time.

5.5. Following review of the GHD House facility, it was proposed to refurbish and/or replace equipment which is at end-of-life (EOL) or has a high potential for failure within the control facility at the same time bring the control centre in line with present industry standards.

5.6. The proposal supported the relocation of the GHD House control centre to a purpose built facility within the Allendale II building which that the time was being fitted out. This would leave the existing facility to be used as a functional operations and commercial Disaster Recovery ('DR') site as opposed to the existing Jandakot back up facility that services as an operational only DR site.

5.7. Any hardware or equipment that was owned by DBP, and identified for relocation was to remain the property of DBP within the new facility and was not included within the business case.

5.8. The following risks were identified for the existing DBNGP Control Room at GHD House and its operational up at Jandakot:

(a) The telecommunications infrastructure is at EOL and has no inbuilt redundancy

(b) Some equipment is outside of the manufacturer's technical support.

(c) The voice communications design for the control centre operators is no longer suitable for a modern command and control facility that supports the DBNGP with growth generated by STX4 and 5A. This is due to the number of single points of failure embedded into the design.

(d) Not all the equipment can be replaced due to age, service status or condition. The UPS currently supporting the control room is currently operating well beyond its rated capacity.

(e) Furthermore, due to the design of the cabling infrastructure an lack of redundancy, the UPS unit is not able to be removed from service without exposing the infrastructure to further significant risk.

(f) The Jandakot DR site is a back up for operational purposes only and does not support any of the commercial systems managed at the main control room. The same DR site's telephony connectivity requires upgrade.

(g) The Jandakot DR site is not able to be provisioned with Telco fibre optic cable at that point in time to implement industry standard DR connectivity as there is none available with in 3-5km from the site.

Response to 3.2 – Motor Vehicles

5.9. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.3 & 3.4 – SCADA

5.10. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.5 – CCVT

5.11. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.6 – Software (Maximo)

5.12. The CMMS software (Maximo) is an essential tool used to maintain all the assets related to the DBNGP.

5.13. As a result of the DBNGP Asset Management Review Project conducted by AAM, a number of deficiencies were identified in how assets are managed.

5.14. AAM's current version of Maximo was no longer supported by the vendor, IBM. Risk's associated with system outages and loss of critical data, substantially increase with the aging version of Maximo. Support costs were predicted to increase over time, as the vendor no longer supported AAM's version under maintenance agreements at the time.

5.15. The overall program has been divided into two Projects. Whilst these are clearly separate parts of the overall project, they are dependant on each other, and one cannot be implemented without the other.

5.16. Project 1 covering all tasks related to data gathering and mapping, and Project 2 containing all tasks relevant to the implementation, including solution design and testing, software, hardware, training and technical development.

5.17. The main tasks of Project 1 and Project 2 are:

Project 1: Data re-engineering This includes -:

(a) Data structure definition: data conversion strategy definition and detailed planning, data hierarchies design and template documentation, team training

(b) Data mapping: data extract from Maximo 4.03 and mapping to the new hierarchies

(c) Data collection: drawing inspections and technical information gathering for all missing pieces of information within the scope of the work outlined in the study.

(d) Data structure refinement: hierarchy assessment by business users and on-site assessment requests for data deemed problematic

(e) Data validation: mock conversion waves in Maximo 6.2 through data loader to validate data quality and integrity

Project 2: Maximo Implementation. This includes -:

(a) Four phases - business blueprint, realization, final preparation, go-live and support (see below diagram).

(b) Two rounds of mock conversion (mock 1 and 2) will take place. This will use intermediate data supplied by Project 1, as scheduled below.

(c) One additional round of mock conversion (mock 3) will take place during Project 2. This round will use final static and the latest dynamic data snapshot as scheduled below.

Please note this project does not cover the following activities:

(d) Subsequent data cleansing, mapping for missing and remaining miscellaneous assets.

(e) Challenge current 4.03 maintenance data values for accuracy. Those will be taken as is and missing fields are to be completed only.

Response to 3.7 - Compression

5.18. In response to request 3.6 DBP refers to the Asset and Maintenance Plans already provided as part of request 1.1.

Response to 3.8 - Compression

5.19. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.9 - Compression

5.20. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.10 - Compression

5.21. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.11- Compression

5.22. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.12- Microwave

5.23. The telecommunications network for the Dampier to Bunbury Natural Gas Pipeline (DBNGP) was an analogue microwave radio system. The microwave network was aging and subject to faults and failures. The telecommunication network carries all the SCADA information relating to compression controls and status, valve controls and status and monitoring of the gas flows throughout the pipeline as well as telephony (voice) traffic, data and mobile radio traffic for the pipeline system.

5.24. Western Power had indicated that they intend to cease providing maintenance services on the old microwave radio system at the end of December 2007.

5.25. During the first quarter of 2006, [redacted] was commissioned to carry out a study on the options for replacement of the existing microwave radio system and prepared a report with a number of recommendations on the way forward. The replacement of the old analogue microwave system with a new digital microwave system was identified as the lowest cost and possibly easiest to implement solution.

5.26. Tenders were called in December 2006 for the design, supply, installation and commissioning of a replacement Microwave Communications System inclusive of a VHF Radio System on a Lump Sum basis.

5.27. The tendering process together with the Monte Carlo Cost Risk Analysis process allowed the total project budget to be established.

5.28. The project was executed and coordinated in line with the Stage 5A project schedule.

Response to 3.13 – DBNGP Signage

5.29. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.14 – Compressor Station Pipework

5.30. The condition of the underground pipeline on the DBNGP is monitored via cathodic protection (CP) surveys and Direct Current Voltage Gradient (DCVG) surveys. However, the condition of the underground pipe work in compressor stations cannot be determined in the same manner due to the vast number of other underground systems in the vicinity. A dig up program of under ground pipe work was stated to verify the condition of the coating systems.

5.31. The project is to maintain an acceptable level of inspection of underground pipework.

Response to 3.15 - Transition Costs

5.32. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 3.16 – Coating and Earthing Replacement

5.33. To investigate the performance and staus of the existing earthing grids in compressor stations from electrical and materials view points and come up with a proposal for new earthing grids to fulfil the safety requirements in future.

5.34. The original earthing grids in compressor stations being of zinc ribbons and galvanised steel had shown wide range of amterials deterrioration. The effects of corrosion were quite obvious with reference to extensive dig up and coating renovation programs in compressor stations 3, 5 and 8 in previous years.

5.35. The new study was to take into consideration take into consideration

(a) The suitability of the existing earthing grids for their design purposes, ie electrical resitance to remote earth with particular attention to earthing islands.

(b) At provision of distributed magensium anodes within and around a compressor station to protect the new zinc grids.

(c) A progressive plan to replace the earthing grids according to the results of earthing resistance measurements.

6. FORECAST CAPITAL EXPENDITURE

6.1. The Halcrow report has outlined specific and general information which it requires for the forecast capital expenditure, as outlined in the following table.

6.2. DBP was unable to prepare the required information outlined by Halcrow in the time available. DBP is currently finalising the response and will be provided to the ERA as soon as practicable.

Item	Description	Comment
4	**Expansion Capital Expenditure (2011 to 2015)**	
4.1	Pipeline – Please provide details of the scope of works.	To understand the extent of work and expenditure required to complete Stage 5B.
4.2	Compression – Please provide details of the scope of works.	To understand the extent of work and expenditure required to complete Stage 5B.
4.3	Other – Please provide details of the scope of works.	To understand the extent of work and expenditure required to complete Stage 5B.

7. STAY-IN-BUSINESS CAPITAL EXPENDUTRE (2011 TO 2015)

7.1. The Halcrow report has outlined specific and general information which it requires for the stay-in-business capital expenditure incurred in the period (2011 to 2014), as outlined in the following table.

Item	Description	Comment
5	**Stay-in-Business Capital Expenditure (2011 to 2015)**	
5.1	Compressor Stations – Replacement of compressor control at CS2, 4 & 7 at a cost of $[redacted] in 2011 and $[redacted] in 2012. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.2	Compressor Stations – Replacement of compressor control at CS10 to cost $[redacted] in 2012. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.3	Compressor Stations – Replacement of station PLC 5 at ACS sites and CS10 $[redacted] in 2011. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.4	Compressor Stations – CS6 NP exhaust replacement $[redacted] in 2014. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.5	Compressor Stations – Underground pipework at compressor station at $[redacted] per annum. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.6	Compressor Stations – Replace compressor station copper earthing (CS1, 5 & 8) at $[redacted] per annum from 2011 to 2013. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.7	Compressor Stations – Replacement of stage 3A turbine air inlet filters cost $[redacted] in 2011. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.8	Compressor Stations – Upgrade of compressor station costs $[redacted] in 2015. Please provide scope (age of building, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.9	Compressor Stations – GEA overhaul costs $[redacted] per annum. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.
5.10	Meter Stations – Flow computer upgrades cost $[redacted] in 2012 and $[redacted] in 2013 and 2014. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived.	To understand the scope of works and the costing methodology.

5.11	Pipeline – South West Communication Upgrade cost $[redacted] per annum from 2011 to 2013. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived. Please clarify what is meant by "changes in the associated assets".	To understand the scope of works and the costing methodology.
5.12	Pipeline – Replacement of CCVT cost $[redacted] in 2011, $[redacted] in 2012 and $[redacted] in 2013. Please provide scope (age of equipment, work carried out internal/external) and details of the cost including how they have been derived. Please clarify the difference between the project in 2010 as compared to what is proposed from 2011 to 2013.	To understand the scope of works, the costing methodology and the difference between work in 2010 as compared to the forecast period.
5.13	Other – Jandakot office construction. Please provide details of cost including how they have been derived. Please detail if there are any cost savings as a result of the move.	To understand the benefit in the move, costing methodology and any cost savings.
5.14	Other – SCADA upgrade of $[redacted] in 2011. Please provide details of the project, the cost and how it has been derived. Please clarify the difference in the project in 2010 and 2011.	To understand the scope of works and the costing methodology.
5.15	Other – Please provide the IT strategy that determines the requirements of: ▪ ICT (SAP, Maximo, CRS) replacement and the proposed timing; and ▪ Lap top replacement and the proposed timing. Also provide details of the costs and how they have been derived.	To understand the scope of works, the justification and the costing methodology.
5.16	Other – Replacement vehicles cost $[redacted] per annum; consistent with item 3.2 please provide details of the number, types of vehicles to be replaced and the costs per vehicle.	To understand the scope of works, the justification and the costing methodology.
5.17	Other – Software licences cost $[redacted] per annum. Please detail how this provision has been derived and what type of licences they cover.	To understand the scope of works, the justification and the costing methodology.
5.18	Other – Management of change; please provide details of what type of changes have been provision for and how the costs of $[redacted] per annum has been derived.	To understand the scope of works, the justification and the costing methodology.

7.2. DBP provides the following in respect to the items in the table that it has been able to collate in the time available. It is still in the process of collating material for the remaining items which will be provided when they come to hand.

Response to 5.1 – Compressor stations CS2, 4 & 7

7.3. Upgrade existing Allen Bradley PLC 5/80 based system to Allen Bradley Contrologix5000 based system.

7.4. Upgrade of Fuel system to PECC based electrical actuator type system.

7.5. Upgrade of actuator system for IGV and Bleed valve.

7.6. Condition monitoring instrumentation upgrade

7.7. Installation & commissioning.

7.8. Age of Equipment: The station control system installed during the Stage 3 expansion project in the year 1990-1991.

7.9. Cost was derived based on the feed study carried out with [redacted].

Response to 5.2 – Compressor Station

7.10. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.3 - Compressor Stations Cs1, 3, 5, 8 and 10

7.11. Upgrade existing Allen Bradley PLC 5/25 based system to Allen Bradley Contrologix5000 or GE RX3i based control system

7.12. Configure station control system to transfer the existing station control functionality..

7.13. Age of Equipment: The station control system installed during the Stage 3 expansion project in the year 1990-1991.

7.14. The cost was derived based on a feed study carried out by Motherwell.

Response to 5.4 – Compressor Station NP exhaust Replacement

7.15. A Magnetic Particle inspection was conducted by an NDT specialist on accessible external welds at CS06 Nuovo Pignone Turbine Exhaust between the 23rd and 25th Mar 2009. A total of 37 linear indications were detected ranging from 2 – 170 mm's in length. The areas highlighted indicate where the majority of defects were found. A full report is expected from MJ Engineering in the near future.

7.16. The steel patches welded to the structure were fitted as a temporary measure to support and strengthen circumferential cracks found some time ago. Initial findings reveal very poor quality weld condition holding the patches to the structure - 90% of the stitch welds are porous and cracked.

7.17. Unit 2 was operational with gas flowing. Structural debris falling from height had the potential to impact and damage the adjacent discharge pipeline, surrounding buildings and/or personnel working in the vicinity.

7.18. This type of event would have a severe impact with unacceptable consequences in terms of injury to personnel, substantial cost, interruption to the supply of gas, uncontrolled release of gas to the environment and damage to reputation.

Response to 5.5 – Compressor Stations

7.19. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.6 – Compressor Stations

7.20. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.7 – Compressor Stations

7.21. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.8 – Compressor Stations

7.22. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.9 – Compressor Stations

7.23. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.10 – Meter Stations

7.24. Forty metering stations using the Bristol Babcock DPC33XX flow computer were obsolete. Additionally, these metering installations had a number of problems in regards to the obsolescent flow computer hardware. The primary problem was the maintainability of the sites. The site was made extremely difficult to maintain due to the following problems:

(a) There are too many systems (in varying stages of commission) involved with convoluted wiring in between

(b) The power distribution is convoluted and unclear to follow

(c) There are too many schematics containing crumbs of vital information (most are still hand mark ups)

(d) The majority of the wires are labelled only with the number of the terminal they wire to,(making the information unusable for fault finding as the numbers differ on either side of the wire and they are not unique to the loop)

(e) The second problem is the reliance on obsolete, inefficient and low accurate Intrinsically Safe barriers.

7.25. At the time it was recommended to:

(a) Have an IS conformance review conducted by DBP and for all metering sites to be upgraded.

(b) Replace the existing 24 V DC distribution within the metering panel, with a centralised 24 V DC distribution pan. The pan would then contain isolating circuit breakers for all 24 V DC systems within the metering panel. All existing 24 V DC distribution drawings for the metering panel were to be cancelled and replaced by a single schematic diagram of the pan.

(c) Replace all intermediate wiring between the IS barriers and the flow computers with premade terminal blocks on DIN rail to be batch installed on site. This replaced the existing inadequate wire labelling, reduce installation time and cater for the new 24 V DC supply to the IS barriers.

(d) Removal of mimic panel and replace with a simple indication/control board. The board to include standard valve control/indication switches/LEDs plus the metering alarm / warning indication that is commonly seen at MLV stations.

(e) All critical systems requiring 240 V AC to be removed / replaced with 24 V DC systems making the 24 V DC to 240 V AC inverters obsolete. A 240 V AC supply from the 240 V AC distribution board is to be made available to the metering panel for the anti condensation heaters and GPO.

Response to 5.11 - Pipeline

7.26. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.12 - Pipeline

7.27. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.13 - Other

7.28. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.14 - Other

7.29. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.15- Other

7.30. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.16 - Other

7.31. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.17- Other

7.32. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 5.18- Other

7.33. DBP is in the process of collating this information which will be made available as soon as possible.

8. HISTORICAL OPERATING EXPENDITURE

8.1. The Halcrow report has outlined specific and general information which it requires for the historical operating expenditure, as outlined in the following table.

Item	Description	Comment
6	**Historical Operating Expenditure (2005 to 2010)**	
6.1	A breakdown of historical operating expenditure on the same basis as provided for forecast expenditure (refer Table 2 in *Submission 12*).	To understand the detailed makeup of the historical operating expenditure and thereby confirm the baseline level of operating expenditure.
6.2	A comparison of actual operating expenditure to the proposed operating expenditure as identified in the (existing) 2005 Access Arrangement. The comparison should preferably be presented on the same basis (ie. breakdown) as provided for forecast expenditure (refer Table 2 in *Submission 12*).	To understand the detailed makeup of the historical operating expenditure and changes from the expenditure forecast in the 2005 Access Arrangement.
6.3	Details demonstrating the correlation between changes in operating expenditure and the growth of DBP's asset portfolio (inventory) on an annual basis over the period from 2005 to 2010.	To understand the operating and maintenance costs attracted by each item of infrastructure.
6.4	Correlation of historical staffing levels with operations and maintenance activities.	To enable allocation of staffing costs to specific activities.
6.5	Clarification as to the correct timeframe over which the growth in DBNGP assets has been assessed in *Submission 12*, section 6.4 [it is noted that the text and Table 5 caption refer to the period 1999 to 2009/10, whilst the table header row shows 2004 and 2009/10].	To clarify the rate of asset growth.
6.6	Details of adopted/assumed inflationary factors and the net impact over the period 2005 to 2010 [it is noted that *Submission 12* provides a discussion of the impact of inflation over the period 1999 to 2009, with a further adjustment to 2010 for the adopted factors (unless the references to 1999 in sections 6.5 and 6.7 are errors)].	To understand DBP's submission in respect to the impact of inflation on historical operating costs.
6.7	Documentation demonstrating the proposed fee increases under the Access Right, including the timeframe under which they will become applicable.	To understand the breakdown of the "Utility Rates and Taxes" expenditure category.
6.8	Details of a risk assessment or business case that underpins the need to increase aerial surveillance of the DBNGP pipeline corridor, together with details of scope and cost of surveillance activities both prior and subsequent to the increased surveillance frequency.	To understand the basis for and magnitude of surveillance cost increases.
6.9	Clarification of the timing when cost sharing of the microwave maintenance costs ceased.	To understand that impact of changes to microwave maintenance arrangements on operating expenditure.
6.10	Details of the need to install a new microwave system, including assessment of options taking into account whole of life (including maintenance) costs [it is noted in *Submission 12* that maintenance costs are higher than for the previous system].	To understand that impact of changes to microwave maintenance arrangements on operating expenditure.
6.11	Details of the additional costs incurred by engineering consultancies, including details of the nature of the work undertaken, the associated costs and justification for the increased activity.	To understand the significance and impact of the increased expenditure.
6.12	Details of the reasons for the increased Information Technology Costs including changes to the Operating Services Agreement and details as to whether alternative supply options were considered.	To understand the impact of changes to the Operating Services Agreement.

6.13	Details of the increased obligations that have resulted in increased Audit Costs.	To understand the impact of changing regulatory obligations.
6.14	Identification of the categories (refer Table 2 in *Submission 12*) to which Information Technology and Audit costs have been allocated.	To understand the compilation of expenditure categories.
6.15	Details of the correlation between calculated (forecast) and actual quantities of fuel gas used during the current Access Arrangement period.	To confirm the veracity of the fuel gas forecasting model.
6.16	Details of actual self insurance events during the current Access Arrangement period, including details of associated costs.	To understand the nature and extent of self insurance events.

Response to 6.1

8.2. Refer to expanded tariff model provided as attachment *DBP Response 2010 - 2015 - Tariff model confidential - INFO REQ June 15.XLS*

Response to 6.2

8.3. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.3 Asset Growth

8.4. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.4

8.5. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.5

8.6. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.6

8.7. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.7

8.8. DBP provides advise from DPI concerning revaluation of Access Right charges in attachment *6.7 a DPI Revaluation of Access Right Charges*

Response to 6.8

8.9. In response to request 6.8 DBP provides the Land Management Improvement Plan (attachment *6.8 Land Management Improvement Plan 25 May 2010.doc*)

Response to 6.9

8.10. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.10

8.11. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.11

8.12. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.12

8.13. Context to changes to the Operating Services Agreement (OSA) is already detailed in Background Submission 1 from paragraphs 5.6 to 5.9 and Section 6 of the submission. DBP has also previously provided the amended OSA to the ERA.

Response to 6.13

8.14. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.14

8.15. DBP is in the process of collating this information which will be made available as soon as possible.

Response to 6.15

8.16. DBP provides the table below comparing fuel gas forecasting for the period 2005 – 2010 and actual quantities used.

Table: Correlation of Fuel gas forecast and actual quantities of fuel gas used 2005 - 2010

Forecast	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Forecast of quantity fuel gas used	22.53	27.40	47.26	43.86	42.08	44.74
Forecast of $ Million Nominal fuel gas used	20.11	23.19	40.83	38.79	37.88	41.11

Actual	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Actual quantity of fuel gas used	28.22	30.50	34.57	18.95	19.55	15.03
Actual $ Million Dollar fuel gas used	26.06	26.16	32.80	17.22	18.54	14.37

8.17. DBP proposes to address veracity of modelling in the workshops proposed the ERA.

Response to 6.16

8.18. DBP refers Halcrow to submission 12 already provided to the ERA.

9. FORECAST OPERATING EXPENDITURE

9.1. The Halcrow report has outlined specific and general information which it requires for the historical operating expenditure, as outlined in the following table.

9.2. DBP is still in the process of collating material for the remaining items which will be provided when they come to hand.

Item	Description	Comment
7	**Forecast Operating Expenditure (2011 to 2015)**	
7.1	In *Submission 12*, DBP has used the term "operator" in the same context as DBP. Clarification is required as to which entity operates the pipeline; if not DBP, details of the relationship between the parties are required.	To understand how operation and maintenance of the pipeline is administered.
7.2	Detailed breakdown of proposed expenditure by activity, preferably in MSExcel (or similar) format to enable detailed analysis, together with spreadsheet models (which detail key assumptions and methods) used to determine forecast operating expenditure [it is noted that DBP has advised that all budgets are "zero" based].	To understand how DBP has derived its forecast operating expenditure and how it relates to the historical operating expenditure.
7.3	A copy of the Safety Case and any further correspondence with Western Australia's Safety and Technical Regulator in relation to its assessment of the Safety Case, which is likely to have an impact on operating expenditure.	To provide details of the changes to the Safety Case, as required by the Western Australian Government.
7.4	Details of the increased compliance obligations that will need to be included in the Safety Case, and the resultant impact on Operating Expenditure.	To understand the impact of regulatory obligations and related changes on operating costs.
7.5	Asset Management Plan/Maintenance Plans (both routine and reactive) for all items of infrastructure, showing proposed maintenance activities and associated costs on an annual basis.	To understand basis of operating and maintenance costs allocated to each item of infrastructure.
7.6	A copy of DBP's Audit Schedule, including identification of all Mandatory Audits. The scope and timing of all audits should be identified.	To understand the impact of regulatory obligations on operating costs.
7.7	Correlation of forecast staffing levels with operations and maintenance activities.	To enable allocation of staffing costs to specific activities.
7.8	Details of the calculation of labour costs and the basis of the assumed 2 percent labour cost escalation rate.	To confirm justification for the adopted labour cost escalation rate.
7.9	Details of DBP's assessment of risk and the basis for the agreements with Alcoa in respect to the supply of Fuel Gas. When is it expected that Alcoa will be supplying its own fuel gas and what will the impact be on the quantity of fuel gas forecast in the Access Arrangement?	To understand the cost of mitigating risks associated with the System Use Gas Agreement.
7.10	Documentation supporting the adopted weighted fuel gas cost ($[redacted]/GJ.in 2011 rising to $[redacted]/GJ in 2015).	To justify the adopted cost of fuel gas.
7.11	Details of DBP's assumptions in respect to "hardening of the insurance market in the upcoming period", including comparison with actual insurance premiums paid during the period 2005 to 2010 and assumptions in respect to the increased asset portfolio.	To understand how the forecast insurance costs have been derived.

7.12	Details of the self insurance risks demonstrating the quantification of the potential risk and the mitigation measures implemented (or planned to be implemented) in respect to uninsured risks, together with details of the associated costs.	To understand how the forecast self insurance costs have been derived.
7.13	Assumptions made in respect to forecast operating costs relating to Climate Change Reform, specifically the Carbon Pollution Reduction Scheme, and the impact of the Government's decision to defer implementation of the scheme on DBP's forecast operating expenditure.	To understand the impact to changes in Climate Change policy on forecast operating expenditure.
7.14	Details of basis adopted for forecasting compressor overhaul costs, including assumptions in respect to the number of units to be overhauled and the timing of such overhauls. If overhaul costs are incurred in foreign currency, provide details of assumptions made in respect to currency exchange rates used for in estimating overhaul cost.	To understand how compressor overhaul costs have been derived.
7.15	Details of proposed non-recurrent expenditure, eg. DCVG surveys, ILI pigging and heater inspections, including details of the cost derivation and justification for the timing of activities.	To understand the impact of non-recurrent activities on operating expenditure.
7.16	Records of unplanned repairs and maintenance activities, including costs, given that historical performance has been used as the basis for estimating forecast expenditure (refer *Submission 12*, Section 6.50).	To understand the basis upon which reactive maintenance costs have been derived.

10. CONFIDENTIALITY