~~Access Arrangement Information for the Dampier to Bunbury Natural Gas Pipeline~~[1]

REVISED ACCESS ARRANGEMENT INFORMATION[2]

PUBLIC VERSION[3]

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~~1.~~ [56]~~INTRODUCTION~~[57]

1. [58]INTRODUCTION[59]

1.1. This document comprises the Access Arrangement Information (**AAI**) for the revised Access Arrangement [60]for the Dampier to Bunbury Natural Gas Pipeline, approved by the ERA[61] pursuant to the requirements of the ~~*Gas Pipelines*~~[62]National Gas Access (WA) Act 2009 (**NGA**), the National Gas[63] Access (Western Australia) [64]~~*Act 1998*, which incorporates the~~[65]Law (**NGL**) and[66] National [67]~~*Third Party Access Code for Natural Gas Pipeline Systems* ("Code"~~[68]Gas Rules 2009 (**NGR**[69]).

~~2. ACCESS AND PRICING PRINCIPLES~~[70]

~~2.1 Reference Services~~[71]

~~Section 3.3 of the Code requires the Access Arrangement for the DBNGP to offer a Reference Tariff for at least one Service sought by a significant part of the market ("Reference Service").~~[72]

~~Reference tariffs are provided for three Reference Services:~~[73]

- ~~Full Haul T1 Service (T1 Service)~~[74]
- ~~Part Haul T1 Service (P1 Service)~~[75]
- ~~Back Haul T1 Service (B1 Service)~~[76]

~~2.2 Non-Reference Services~~[77]

~~The following Non-Reference Services are available to a Prospective Shipper subject to availability of Capacity:~~[78]

- ~~Spot Capacity Service;~~[79]
- ~~Park and Loan Service; and~~[80]
- ~~Seasonal Service~~[81]

~~The following Non-Reference Services are available to a Prospective Shipper subject to Operational Availability:~~[82]

- ~~Peaking Service;~~[83]
- ~~metering information service;~~[84]
- ~~pressure and temperature control service;~~[85]
- ~~odorisation service; and~~[86]
- ~~co-mingling service.~~[87]

~~The Operator is prepared to negotiate to provide a Prospective Shipper with any other Service that is not a Reference Service.~~[88]

~~In addition to the above Non-Reference Services, the Operator will provide services to shippers with Gas transportation contracts entered into~~[89] ~~before the commencement of the~~ [90]~~Access Arrangement Period.~~[91]

3 TARIFF DETERMINATION METHODOLOGY[92]

3.1 Tariff Structure[93]

The Reference Tariff for each of the Reference Services is a two-part tariff as follows:[94]

(a) Capacity Reservation Tariff[95]

The[96] Capacity Reservation Tariff is a number of dollars per GJ of Contracted Capacity for the Reference Service[97].[98]

Each Reference Service Shipper is to pay the Operator a Capacity Charge, which is to be calculated for each Gas Day by multiplying the aggregate of the Shipper's Delivery Point MDQs by the Capacity Reservation Tariff for the relevant Reference Service.[99]

(b) Commodity Tariff[100]

The[101] Commodity Tariff is a number of dollars per GJ of gas actually Delivered to any[102] Delivery Point on the DBNGP.[103]

Each Reference Service Shipper is to pay the Operator a Commodity Charge, which is to be calculated for each Gas Day by multiplying the aggregate of the quantity of gas delivered to the Shipper at a Delivery Point or Delivery Points by the Commodity Tariff for the relevant Reference Service.[104]

The Capacity Reservation Tariff recovers from each Reference Service Shipper a proportion of the return and depreciation on, and a proportion of the non capital costs[105] incurred in operating and maintaining, the DBNGP[106]. The Capacity Reservation Tariff essentially recovers the fixed costs of the DBNGP. The levels of these costs are determined by the total requirement for capacity to provide the Reference Service, and they are to be recovered on the basis of Reference Service Shippers' contracted capacity requirements.[107]

The Commodity Tariff recovers from each Reference Service Shipper a proportion of the cost of the fuel gas used on the DBNGP. Fuel gas costs are the only variable costs associated with operation of the DBNGP. They are recovered from Reference Service Shippers on the basis of the quantity of gas delivered to those shippers.[108]

3.2 Cost Allocation and Distance-Based Tariffs[109]

The Reference Tariffs have been determined under an assumption that all Shippers using Full Haul, Part Haul and Back Haul Services are users of the respective Reference Services.[110]

The Reference Tariffs for the P1 Service and B1 Service are determined as a proportion of the Reference Tariff for the T1 Service according to the following formula.[111]

1.2. [112]It revises the access arrangement information for covered pipeline services on the DBNGP that was drafted by the ERA on 15 December 2005 (**Prior Access Arrangement Information**).[113]

1.3. [114]In accordance with Rule 42 of the NGR, this AAI contains the information that is necessary for Shippers and Prospective Shippers:[115]

(a) [116]to understand the background to the access arrangement proposal; and[117]

(b) [118]to understand the basis and derivation of the various elements of the access arrangement proposal.[119]

where[120]

~~*F* is the value of the charge that would apply if the Service were the full haul Reference Service[121]~~

~~*D* is the distance in kilometres of pipeline between the relevant Receipt Point and the relevant Delivery Point.[122]~~

~~3.3 Incentive structures: price path[123]~~

~~The Reference Tariff Policy set out in the Access Arrangement provides for Reference Tariff adjustment in accordance with a predetermined price path. The Reference Tariff will be adjusted annually during the Access Arrangement Period by 100 per cent of the increase in the CPI.[124]~~

~~Price path regulation provides Operator with an incentive to minimise the costs of delivering the Reference Service. With the Reference Tariff constrained to increasing at 100 per cent of the increase in CPI, reductions in the cost of delivering the Reference Service increase profits, and these increases in profits are retained at least until the end of the Access Arrangement Period.[125]~~

~~If Operator is able to increase demand for the Reference Service above the forecast quantities used in tariff determination, its revenue from sales will exceed the forecast revenue. To the extent that the increase in demand can be accommodated without a proportionate increase in cost, the Operator will generate higher than expected profits. These higher profits are retained at least until the end of the Access Arrangement Period.[126]~~

~~3.4 Incentive structures: efficiency carryover[127]~~

~~Additional incentives for efficiency improvement are provided by the inclusion of an efficiency carryover mechanism in the Reference Tariff Policy of the Access Arrangement. That mechanism provides, in accordance with section 8.44 of the Code, for a sharing of any returns to the Operator from the sale of Full Haul, Part Haul and Back Haul Services in an Access Arrangement Period that exceeded the level of returns that were expected during that Access Arrangement Period for the sale of such Services. This sharing is effected through inclusion of any efficiency gains in the current Access Arrangement Period in the Total Revenue from which the Reference Tariff for the following Access Arrangement Period is to be determined. If efficiency gains are made in the current Access Arrangement Period, the Operator is rewarded with a higher Reference Tariff in the following Access Arrangement Period.[128]~~

~~4 INFORMATION REGARDING CAPITAL COSTS[129]~~

~~4.1 Initial[130] Capital Base[131]~~

~~The Initial Capital Base has been established at a value of $1,550.00 million as at 31 December 1999.[132]~~

~~The allocation of the Initial Capital Base to asset classes as at 31 December 1999 is in accordance with the allocation made for determination of the Reference Tariff applicable during the initial Access Arrangement Period. Asset values by class of assets as at 31 December 1999, and escalated to 31 December 2004, are shown in Table 1.[133]~~

1.4. [134]The following table outlines the provisions of the NGR and NGL that outline what must be included in an AAI (**NGR Requirements)** and where in the AII each NGR Requirement is addressed:[135]

NGR Reference[136]	**NGR Requirement**[137]	**AAI Section**[138]
r. 72(1)(a)(i)[139]	capital expenditure (by asset class) over the earlier access arrangement period;[140]	3[141]

r. 72(1)(a)(ii)[142]	operating expenditure (by category) over the earlier access arrangement period;[143]	4[144]
r. 72(1)(a)(iii)(A)[145]	for a transmission pipeline, minimum, maximum and average demand for each receipt or delivery point;[146]	5.1[147]
r. 72(1)(a)(iii)(B)[148]	for a transmission pipeline, user numbers for each receipt or delivery point;[149]	5.4[150]
r. 72(1)(b)[151]	how the capital base is arrived at and, if the access arrangement period commences at the end of an earlier access arrangement period, a demonstration of how the capital base increased or diminished over the previous access arrangement period;[152]	6[153]
r. 72(1)(c)(i)[154]	a forecast of conforming capital expenditure for the period and the basis for the forecast;[155]	7.5[156]
r. 72(1)(c)(ii)[157]	a forecast of depreciation for the period including a demonstration of how the forecast is derived on the basis of the proposed depreciation method;[158]	7[159]
r. 72(1)(d)[160]	to the extent it is practicable to forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period, a forecast of pipeline capacity and utilisation of pipeline capacity over that period and the basis on which the forecast has been derived;[161]	8[162]
r. 72(1)(e)[163]	a forecast of operating expenditure over the access arrangement period and the basis on which the forecast has been derived;[164]	9[165]
r. 72(1)(f)[166]	the key performance indicators to be used by the service provider to support expenditure to be incurred over the access arrangement period;[167]	10[168]
r. 72(1)(g)[169]	the proposed rate of return, the assumptions on which the rate of return is calculated and a demonstration of how it is calculated;[170]	11[171]
r. 72(1)(h)[172]	the proposed method for dealing with taxation, and a demonstration of how the allowance for taxation is calculated;[173]	0[174]
r. 72(1)(i)[175]	if an incentive mechanism operated for the previous access arrangement period—the proposed carry-over of increments for efficiency gains or decrements for efficiency losses in the previous access arrangement period and a demonstration of how allowance is to be made for any such increments or decrements;[176]	N/A[177]
r. 72(1)(j)(i)[178]	the suggested basis of reference tariffs, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs;[179]	14[180]
r. 72(1)(j)(ii)[181]	a description of any pricing principles employed but not otherwise disclosed under this rule;[182]	N/A[183]

r. 72(1)(k)[184]	the service provider's rationale for any proposed reference tariff variation mechanism;[185]	15[186]
r. 72(1)(l)[187]	The service provider's rationale for any proposed incentive mechanism;[188]	N/A[189]
r. 72(1)(m)[190]	the total revenue to be derived from pipeline services for each regulatory year of the access arrangement period.[191]	17[192]

2. [193]

BASIS ON WHICH FINANCIAL INFORMATION IS PROVIDED [R. 73][194]

2.1. [195]Unless otherwise stated, financial information in this AAI relating to the calendar years from 2005 to 2010 is provided in real terms with all values expressed at December 2009 prices.[196]

2.2. [197]Where necessary, to express financial values at December 2009 prices, the values have been escalated[198] at the rate of inflation as measured by the Consumer Price Index (All Groups, [199]Perth). Year on year percentage changes in the December quarter Consumer Price Index (All Groups, Perth) are as shown in Table 1.[200]

Table 1 [201]**Year on year percentage changes in the Consumer Price Index (All Groups Perth) 2005 to 2010**[202]

2005[203]	2006[204]	2007[205]	2008[206]	2009[207]	2010[208]
3.98%[209]	4.36%[210]	3.02%[211]	3.75%[212]	2.11%[213]	2.50%[214]

Source for 2005 – 2009 values: http://www.abs.gov.au[215]

2010 value is an estimate[216]

2.3. [217]Unless otherwise stated, financial information in this document relating to the calendar years 2011 to 2015 is provided in real terms with all values expressed at December 2009 prices.[218]

2.4. [219]Financial data are provided on a calendar year basis.[220]

3. [221]

CAPITAL EXPENDITURE OVER THE PRIOR [222] ACCESS ARRANGEMENT PERIOD [R. 72(1)(a)(i)][223]

3.1. ~~Table 1: Initial~~[224] Conforming[225] Capital [226]~~Base~~ [227]Expenditure ([228]by asset class[229]

~~Asset~~[230]	~~Percentage of total asset value~~[231]	~~Asset value at 31 Dec 1999 ($million, at 31 Dec 1999)~~[232]	~~Asset value at 31 Dec 1999 ($million, at 31 Dec 2004)~~[233]
~~Pipeline~~[234]	~~81.49~~[235]	~~1,263.15~~[236]	~~1,491.15~~[237]
~~Compression~~[238]	~~13.65~~[239]	~~211.60~~[240]	~~249.80~~[241]
~~Metering~~[242]	~~1.12~~[243]	~~17.35~~[244]	~~20.49~~[245]
~~Other~~[246]			
~~Depreciable~~[247]	~~3.07~~[248]	~~47.66~~[249]	~~56.26~~[250]
~~Non depreciable (land and linepack)~~[251]	~~0.66~~[252]	~~10.24~~[253]	~~12.09~~[254]
~~Total~~[255]	~~100.00~~[256]	~~1,550.00~~[257]	~~1,829.77~~[258]

~~4.2 New Facilities Investment 2000 to 2004~~[259]~~The actual New Facilities Investment~~[260]) made (and in the case of the 2010 calendar year – made or to be made)[261] during the ~~initial~~[262]Prior[263] Access Arrangement Period is shown in Table 2.

Table 2 [264]**Capital Expenditure 2005 to 2010**[265]

~~Table 2: Actual New Facilities Investment 2000 to 2004~~[266]

Year ending 31 December[267]	~~2000~~[2] 68	~~2001~~[2] 69	~~2002~~[2] 70	~~2003~~ 271 **2005**[272]	~~2004~~ 273 **2006**[274]	**2007** 275	**2008** 276	**2009** 277	**2010** 278	Total[2] 79
Nominal $million (dollar values at end of year)[280]										
Pipeline[281]	~~1.39~~[2] 82	~~0.03~~[2] 83	~~0.06~~[2] 84	~~0.00~~[2] 85 0.65[286]	~~0.62~~[2] 87 2.72[288]	230.70[289]	493.38[290]	9.78[2] 91	450.00[292]	~~2.10~~[29] 3 **1,187.23**[294]
Compression[295]	~~18.62~~ 296	~~1.33~~[2] 97	~~0.08~~[2] 98	~~–0.11~~[2] 99 0.00[300]	~~0.18~~[3] 01 50.45[302]	153.66[303]	116.33[304]	9.53[3] 05	171.70[306]	~~20.10~~[3] 07 **501.67**[308]
Metering[309]	~~0.57~~[3] 10	~~0.54~~[3] 11	~~0.36~~[3] 12	~~–0.03~~[3] 13 1.94[314]	~~1.67~~[3] 15 0.05[316]	0.08[3] 17	0.00[3] 18	11.66 319	14.71 320	~~3.11~~[32] 1 **28.43** 322
Other[323]	~~5.10~~[3] 24	~~1.37~~[3] 25	~~0.75~~[3] 26	~~0.92~~[3] 27 0.04[328]	~~0.90~~[3] 29 3.18[330]	2.15[3] 31	5.56[3] 32	8.23[3] 33	67.24 334	~~9.04~~[33] 5 **86.39** 336
Total[337]	~~25.68~~ 338	~~3.27~~[3] 39	~~1.26~~[3] 40	~~0.77~~[3] 41 **2.63**[342]	~~3.38~~[3] 43 **56.39**[344]	**386.58**[345]	**615.27**[346]	**39.20** 347	**703.65**[348]	~~34.35~~[3] 49 **1,803.73**[35]

Real $million ($ values at 351 ~~31~~ 352 December 353 ~~2004~~ 354 2009 355) 356									
Pipeline 357	~~1.55~~ 3 58	~~0.03~~ 3 59	~~0.07~~ 3 60	~~0.00~~ 3 61 0.74 362	~~0.62~~ 3 63 2.97 364	244.38 365	503.77 366	9.78 3 67	439.02 368	~~2.27~~ 3 69 1,200.66 370
Compression 371	~~20.78~~ 372	~~1.44~~ 3 73	~~0.09~~ 3 74	~~-0.12~~ 3 75 0.00 376	~~0.18~~ 3 77 55.06 378	162.77 379	118.78 380	9.53 3 81	167.52 382	~~22.37~~ 383 5 13.65 384
Metering 385	~~0.64~~ 3 86	~~0.58~~ 3 87	~~0.38~~ 3 88	~~-0.03~~ 3 89 2.21 390	~~1.67~~ 3 91 0.06 392	0.08 3 93	0.00 3 94	11.66 395	14.35 396	~~3.24~~ 3 97 28.36 398
Other 399	~~5.69~~ 4 00	~~1.48~~ 4 01	~~0.79~~ 4 02	~~0.94~~ 4 03 0.04 404	~~0.90~~ 4 05 3.47 406	2.28 4 07	5.68 4 08	8.23 4 09	65.60 410	~~9.80~~ 4 11 85.29 412
Total 413	~~28.65~~ 414	~~3.54~~ 4 15	~~1.32~~ 4 16	~~0.79~~ 4 17 **3.00** 418	~~3.38~~ 4 19 **61.54** 420	**409.51** 421	**628.23** 422	**39.20** 423	**686.48** 424	~~37.67~~ 425 **1,827.96** 426

~~The following components of forecast New Facilities Investment associated with the Stage 3A expansion of the DBNGP were included in the value of the Initial Capital Base and have consequently been deducted from the value of actual New Facilities Investment for the purposes of determining the Capital Base at 31 December 2004:~~ 427

- ~~construction and commissioning of compressors at CS2 and CS7 at a cost of $18.855 million (dollar values of 31 December 1999); and~~ 428
- ~~final payments for CS10 of $632,000 (dollar values of 31 December 1999).~~ 429

~~This value in dollar values of 31 December 2004 is $23.004 million.~~ 430

~~The values of New Facilities Investment applied in the roll forward of the Capital Base in the period 2000 to 2004 are shown in Table 3.~~ 431

Table 3: New Facilities Investment Rolled into the Capital Base 2000 to 2004[432]						
Year ending 31 December[433]	2000[434]	2001[435]	2002[436]	2003[437]	2004[438]	Total[439]
Nominal $million (dollar values at end of year)[440]						
Pipeline[441]	1.39[442]	0.03[443]	0.06[444]	0.00[445]	0.62[446]	2.10[447]
Compression[448]	-2.00[449]	1.33[450]	0.08[451]	-0.11[452]	0.18[453]	20.10[454]
Metering[455]	0.57[456]	0.54[457]	0.36[458]	-0.03[459]	1.67[460]	3.11[461]
Other[462]	5.10[463]	1.37[464]	0.75[465]	0.92[466]	0.90[467]	9.04[468]
Total[469]	5.06[470]	3.27[471]	1.26[472]	0.77[473]	3.38[474]	34.35[475]
Real $million ($ values at 31 December 2004)[476]						
Pipeline[477]	1.55[478]	0.03[479]	0.07[480]	0.00[481]	0.62[482]	2.27[483]
Compression[484]	-2.23[485]	1.44[486]	0.09[487]	-0.12[488]	0.18[489]	22.37[490]
Metering[491]	0.64[492]	0.58[493]	0.38[494]	-0.03[495]	1.67[496]	3.24[497]
Other[498]	5.69[499]	1.48[500]	0.79[501]	0.94[502]	0.90[503]	9.80[504]
Total[505]	5.65[506]	3.54[507]	1.32[508]	0.79[509]	3.38[510]	37.67[511]

4.3 Depreciation 2000 to 2004[512]

Values of depreciation applied in determination of Reference Tariffs for the 2000 to 2004 Access Arrangement Period are shown in Tables 4 and 5.[513]

Table 4. Initial Capital Base Depreciation 2000 to 2004 (Real $million, dollar values at 31 December 2004)[514]						
Year ending 31 December[515]	2000[516]	2001[517]	2002[518]	2003[519]	2004[520]	Total[521]
Applied in Reference Tariff Determination (2000 to 2004)[522]						
Pipelines[523]	27.36[524]	27.36[525]	27.36[526]	27.36[527]	27.36[528]	136.80[529]
Compression[530]	13.34[531]	13.34[532]	13.34[533]	13.34[534]	13.34[535]	66.70[536]
Metering[537]	0.54[538]	0.54[539]	0.54[540]	0.54[541]	0.54[542]	2.70[543]
Other[544]	3.34[545]	3.34[546]	3.34[547]	3.34[548]	3.34[549]	16.69[550]
Total[551]	44.58[552]	44.58[553]	44.58[554]	44.58[555]	44.58[556]	222.90[557]

Table 5. New Facilities Investment Depreciation 2000 to 2004 (Real $million, dollar values at 31 December 2004)[558]

Year ending 31 December[559]	2000[560]	2001[561]	2002[562]	2003[563]	2004[564]	Total[565]
Applied in Reference Tariff Determination (2000 to 2004)[566]						
Pipelines[567]	0.00[568]	0.01[569]	0.01[570]	0.01[571]	0.02[572]	**0.05**[573]
Compression[574]	0.00[575]	0.04[576]	0.21[577]	0.38[578]	0.46[579]	**1.09**[580]
Metering[581]	0.00[582]	0.00[583]	0.00[584]	0.00[585]	0.00[586]	**0.01**[587]
Other[588]	0.00[589]	0.20[590]	0.40[591]	0.62[592]	0.81[593]	**2.03**[594]
Total[595]	**0.00**[596]	**0.24**[597]	**0.62**[598]	**1.02**[599]	**1.29**[600]	**3.18**[601]

4.4 Roll-forward of the Capital Base 2000 to 2004[602]

The Capital Base has been rolled forward to 31 December 2004 as follows:[603]

(a) commencing with the Initial Capital Base of $1,550.00 million on 31 December 1999;[604]

(b) the Initial Capital Base has been escalated,[605] at the rate of inflation as measured by the Consumer Price Index (All Groups,[606] Weighted Average of Eight Capital Cities), and expressed in 31 December 2004 prices;[607]

(c) actual New Facilities Investment during the initial Access Arrangement Period has been escalated and expressed in 31 December 2004 prices, and added to the Initial Capital Base; and[608]

(d) depreciation applied in determination of Reference Tariffs for the 2000 to 2004 Access Arrangement Period has been subtracted.[609]

The roll forward of the Capital Base to 31 December 2004 is shown in Table 6.[610]

Table 6. Roll Forward of the Capital Base 2000 to 2004 (Real $million, dollar values at 31 December 2004)[611]

Year ending 31 December[612]	2000[613]	2001[614]	2002[615]	2003[616]	2004[617]
Opening Capital Base[618]	1,829.77[619]	1,790.84[620]	1,749.55[621]	1,705.67[622]	1,660.86[623]
New Facilities Investment[624]	5.65[625]	3.54[626]	1.32[627]	0.79[628]	3.38[629]
Depreciation[630]	44.58[631]	44.82[632]	45.20[633]	45.60[634]	45.87[635]
Closing Capital Base[636]	1,790.84[637]	1,749.55[638]	1,705.67[639]	1,660.86[640]	1,618.37[641]

4.5 New Facilities Investment 2005 to 2010[642]

New Facilities Investment forecast to occur during the Access Arrangement Period is reasonably expected to pass the requirements of section 8.16 of the Code when that New Facilities Investment is forecast to occur.[643]

The value of New Facilities Investment for the Access Arrangement Period is shown in Tables 7 and 8.[644]

Table 7. Forecast New Facilities Investment by asset class 2005 to 2010[645]

Year ending 31 December[646]	2005[647]	2006[648]	2007[649]	2008[650]	2009[651]	2010[652]	Total[653]
Nominal $million (dollar values at end of year)[654]							
Pipelines[655]	4.62[656]	6.06[657]	275.288[65]	304.629[65]	95.42[660]	169.531[66]	**855.542**[66]
Compression[663]	3.79[664]	72.53[665]	127.026[66]	44.93[667]	0.47[668]	0.72[669]	**249.470**[67]
Metering[671]	1.16[672]	1.30[673]	0.17[674]	0.00[675]	0.00[676]	0.00[677]	**2.62**[678]
Other depreciable assets[679]	4.12[680]	3.35[681]	1.72[682]	6.09[683]	7.44[684]	7.08[685]	**29.80**[686]
Non-depreciable assets[687]	0.00[688]	0.00[689]	0.00[690]	0.00[691]	0.00[692]	0.00[693]	**0.00**[694]
Total[695]	**13.69**[696]	**83.24**[697]	**404.198**[69]	**355.649**[69]	**103.330**[70]	**177.341**[70]	**1137.43**702
Real $million (dollar values at 31 December 2004)[703]							
Pipelines[704]	4.50[705]	5.74[706]	254.237[70]	273.968[70]	83.57[709]	144.590[71]	**766.591**[71]
Compression[712]	3.69[713]	68.79[714]	117.315[71]	40.41[716]	0.41[717]	0.62[718]	**231.229**[71]
Metering[720]	1.13[721]	1.23[722]	0.15[723]	0.00[724]	0.00[725]	0.00[726]	**2.51**[727]
Other depreciable assets[728]	4.01[729]	3.18[730]	1.59[731]	5.48[732]	6.51[733]	6.04[734]	**26.81**[735]
Non-depreciable assets[736]	0.00[737]	0.00[738]	0.00[739]	0.00[740]	0.00[741]	0.00[742]	**0.00**[743]
Total[744]	**13.33**[745]	**78.94**[746]	**373.287**[74]	**319.848**[74]	**90.50**[749]	**151.250**[75]	**1027.14**751

Table 8. Forecast New Facilities Investment by investment category 2005 to 2010[752]

Year ending 31 December[753]	2005[754]	2006[755]	2007[756]	2008[757]	2009[758]	2010[759]	Total[760]
Nominal $million (dollar values at end of year)[1][761]							
Expansion[763]							
Pipeline looping[764]	0.51[765]	0.00[766]	272.347[76]	302.118[76]	93.20[769]	167.970[77]	836.131[77]
Compression[772]	0.00[773]	69.23[774]	124.525[77]	44.48[776]	0.00[777]	0.00[778]	238.239[77]
Stay-in-business[780]	13.17[781]	14.00[782]	7.33[783]	9.05[784]	10.13[785]	9.37[786]	63.06[787]
Total[788]	**13.69**[789]	**83.24**[790]	**404.191**[79]	**355.642**[79]	**103.333**[79]	**177.344**[79]	**1137.43**795
Real $million (dollar values at 31 December 2004)[796]							
Expansion[797]							
Pipeline looping[798]	0.50[799]	0.00[800]	251.511[80]	271.702[80]	81.62[803]	143.264[80]	748.595[80]
Compression[806]	0.00[807]	65.66[808]	115.009[80]	40.00[810]	0.00[811]	0.00[812]	220.663[81]
Stay-in-business[814]	12.83[815]	13.28[816]	6.77[817]	8.14[818]	8.87[819]	7.99[820]	57.89[821]
Total[822]	**13.33**[823]	**78.94**[824]	**373.285**[82]	**319.846**[82]	**90.50**[827]	**151.258**[82]	**1027.14**829

4.6 [830]

3.2. [831]The values for 2010 in the above table are made up of actual Conforming Capital Expenditure made during the period from 1 January 2010 to 30 June 2010 and the Operator's forecast of Conforming Capital Expenditure to be made for the period from 1 July 2010 to 31 December 2010.[832]

4. [833]

[1] Nominal values are derived from the real values with an assumed inflation rate of 2.74 per cent per annum. The nominal values differ slightly from values indicated in the Access Arrangement Information due to a different assumed inflation rate. Total Revenue is determined on the basis of the real values.[762]

OPERATING EXPENDITURE FOR THE EARLIER PERIOD [R. 72(1)(a)(ii)][834]

4.1. [835]Operating Expenditure for the Prior Access Arrangement Period is shown in Table 3.[836]

Table 3 [837]**Operating Expenditure 2005 to 2010**[838]

Year ending 31 December[839]	2005[840]	2006[841]	2007[842]	2008[843]	2009[844]	2010[845]	Total[846]
Nominal $million, dollar values at end of year[847]							
Other Operating Expenditure[848]	36.27[849]	39.41[850]	44.40[851]	52.46[852]	65.60[853]	66.42[854]	**304.565**[85]
Fuel gas[856]	24.12[857]	21.43[858]	30.59[859]	15.15[860]	18.62[861]	21.51[862]	**131.423**[86]
Total[864]	**60.39**[865]	**60.84**[866]	**74.99**[867]	**67.61**[868]	**84.22**[869]	**87.93**[870]	**435.971**[87]
Real $million, dollar values at 31 December 2010[872]							
Other Operating Expenditure[873]	41.31[874]	43.01[875]	47.03[876]	53.56[877]	65.60[878]	64.80[879]	**315.310**[88]
Fuel gas[881]	27.47[882]	23.39[883]	32.40[884]	15.47[885]	18.62[886]	20.99[887]	**138.348**[88]
Total[889]	**68.78**[890]	**66.40**[891]	**79.44**[892]	**69.03**[893]	**84.22**[894]	**85.78**[895]	**453.656**[89]

4.2. [897]It is important to note that given the significant and continued expansion program during the Prior Access Arrangement Period, the DBNGP is a much larger, but also a very different pipeline system to what it was in 2005. As at the commencement of the current access arrangement period, it has 50% more compressor units than in 2005 and has been almost 85% looped since 2005.[898]

4.3. [899]Accordingly, the Operating Expenditure required to operate the DBNGP as it is presently configured is very different to that required in 2005, thus making the reference to historical Operating Expenditure inappropriate.[900]

5. [901]

PIPELINE UTILISATION FOR THE EARLIER PERIOD [R. 71(1)(a)(iii)][902]

5.1. [903]Outlined below are the total minimum, maximum and average demand for inlet and outlet points used for the following Pipeline Services:[904]

(a) [905]Full Haul Services (see Table 4)[906]

(b) [907]Part Haul (Forward Haul) Services (see Table 5)[908]

(c) [909]Back Haul Services (see Table 6)[910]

Table 4 [911]**Min, Max and Average demand over the Prior Access Arrangement Period (TJ/d) for Full Haul Pipeline Service**[912] **inlet and outlet points**[913]

	2005 – 2010[914]
Minimum quantity[915]	572.5[916]
Maximum quantity[917]	894.0[918]
Average quantity[919]	625.4[920]

Table 5 [921]**Min, Max and Average demand over the Prior Access Arrangement Period (TJ/d) for Part Haul Pipeline Service inlet and outlet points**[922]

	2005 – 2010[923]
Minimum quantity[924]	52.27[925]
Maximum quantity[926]	137.24[927]
Average quantity[928]	79.67[929]

Table 6 [930]**Min, Max and Average demand over the Prior Access Arrangement Period (TJ/d) for Back Haul Pipeline Service inlet and outlet points**[931]

	2005 – 2010[932]
Minimum quantity[933]	0[934]
Maximum quantity[935]	136.67[936]
Average quantity[937]	93.94[938]

5.2. [939]2010 figures are accurate up to 28 February 2010 inclusive.[940]

5.3. [941]The information contained in the above tables is aggregated information. It is aggregated[942] because, pursuant to Rule 43(2) of the NGR, it contains elements of information which are sensitive information, the public disclosure of which could cause undue harm to the legitimate business interests of the service provider, a Shipper or a Prospective Shipper.[943]

5.4. [944]Table 7 contains details of:[945]

(a) [946]The number of Shippers for each Inlet Point;[947]

(b) [948]The number of Shippers for all Outlet Points (in aggregate form) downstream of Compressor Station 9; and[949]

(c) [950]The number of Shippers for all Outlet Points (in aggregate form) to which Part Haul Services are provided.[951]

Table 7 [952]**Shipper number for each inlet and outlet point**[953]

	Number of customers[954]
Inlet (Receipt point)[955]	
DOMGAS Dampier Receipt[956]	19[957]
Griffin[958]	1[959]
Harriet Group Receipt[960]	16[961]
MLV7 Interconnect[962]	7[963]
Outlet (Delivery point)[964]	
Full Haul Outlet Points[965]	14[966]
Part Haul Outlet Points[967]	9[968]
Back Haul Outlet Points[969]	6[970]

5.5. [971]The information contained in the above table for Outlet Points is aggregated information. It is aggregated because, pursuant to Rule 43(2) of the NGR, it contains elements of information which are sensitive information, the public disclosure of which could cause undue harm to the legitimate business interests of the service provider, a Shipper or a Prospective Shipper.[972]

6. [973]

CAPITAL BASE FOR THE CURRENT PERIOD [R. 72(1)(b)][974]

Calculation of Opening Capital Base for Current Access Arrangement Period[975]

6.1. [976]In accordance with Rule 77(2) the Opening Capital Base for the Current Access Arrangement Period (ie the Opening Capital Base as at 1 January 2010) has been determined by the following formula:[977]

(a) [978]The Opening Capital Base as at the commencement of the Prior Access Arrangement Period (adjusted, if at all, for the difference between estimated and actual Capital Expenditure made in the access arrangement period that preceded the Prior Access Arrangement Period and included in that Opening Capital Base) (the amount is in Table 8);[979]

plus:[980]

(b) [981]Conforming Capital Expenditure made, or to be made, during the Prior Access Arrangement Period (the amounts are in Table 9); and[982]

(c) [983]Capital Contributions by Shippers added to the Capital Base under rule 82(3) of the NGR (the amounts are in Table 10);[984]

less:[985]

(d) [986]Depreciation over the Prior Access Arrangement Period (Depreciation is set out in Table 11)[987]

6.2. [988]The Opening Capital Base at the commencement of the Prior Access Arrangement Period (**PAAP Opening Capital Base**) did not need amending for any expenditure incurred during the access arrangement period that preceded the Prior Access Arrangement Period because the PAAP Opening Capital Base was determined using only actual capital expenditure during that period (as opposed to forecast capital expenditure).[989]

6.3. [990]The Opening Capital Base for the Current Access Arrangement Period has not been amended for any amounts in any of the following categories because there are no amounts during the Prior Access Arrangement Period that fall within these categories:[991]

(a) [992]Amounts to be added to the Capital Base under rule 84 of the NGR.[993]

(b) [994]Amounts to be added to the Capital Base under rule 86 of the NGR.[995]

(c) [996]Amounts to be subtracted from the Opening Capital Base, being for redundant assets identified during the course of the Prior Access Arrangement Period.[997]

(d) [998]Amounts to be subtracted from the Opening Capital Base, being for the value of pipeline assets disposed of during the Prior Access Arrangement Period.[999]

6.4. [1000]The Opening Capital Base as at the commencement of the Prior Access Arrangement Period (ie 31 December 2004) was $1,893.35 million (real dollar values as at 31 December 2009).[1001]

6.5. [1002]The following Table 8 demonstrates how the Capital Base during the Prior Access Arrangement Period changed and how the Opening Capital Base for the Current Access Arrangement Period is calculated.[1003]

Table 8 [1004]**Opening Capital Base**[1005] **(Real $million, dollar values at 31 December 2009)**[1006]

Year ending 31 December[1007]	2005[1008]	2006[1009]	2007[1010]	2008[1011]	2009[1012]	2010[1013]
Capital Base at 1 January[1014]	1893.35[10]15	1844.01[1016]	1852.88[1]017	2206.74[1018]	2770.33[1]019	2738.45[1020]
Plus[1021]						
Conforming Capital Expenditure[1022]	0.78[1023]	61.54[1024]	409.42[10]25	628.23[1026]	17.93[1027]	672.19[10]28
Capital Contributions[1029]	2.21[1030]	0.00[1031]	0.08[1032]	0.00[1033]	21.27[1034]	14.30[103]5
Less[1036]						
Depreciation[1037]	52.34[1038]	52.67[1039]	55.64[1040]	64.64[1041]	71.09[1042]	72.77[104]3
Total value of the Capital Base at 31 December[1044]	**1844.01**[10]45	**1852.88**[1046]	**2206.74**[1]047	**2770.33**[1048]	**2738.45**[1]049	**3352.16**[1050]

6.6. [1051]The amounts for each of the line items in Table 8 are broken down in the following tables:[1052]

Conforming capital expenditure in Prior Access Arrangement Period[1053]

Table 9 [1054]**Conforming Capital Expenditure 2005 to 2010 (Real $million, dollar values at 31 December 2009)**[1055]

Year ending 31 December[1056]	2005[1057]	2006[1058]	2007[1059]	2008[1060]	2009[1061]	2010[1062]	Total[1063]
Pipelines[1064]	0.74[1065]	2.97[1066]	244.38[10]67	503.77[10]68	0.17[1069]	439.02[10]70	**1191.05**[1]071
Compression[1072]	0.00[1073]	55.06[107]4	162.77[10]75	118.78[10]76	9.53[1077]	167.52[10]78	**513.65**[10]79
Metering[1080]	0.00[1081]	0.06[1082]	0.00[1083]	0.00[1084]	0.08[1085]	0.05[1086]	**0.18**[1087]
Other[1088]	0.04[1089]	3.47[1090]	2.28[1091]	5.68[1092]	8.15[1093]	65.60[109]4	**85.22**[109]5
Total[1096]	**0.78**[1097]	**61.54**[1098]	**409.42**[10]99	**628.23**[11]00	**17.93**[1101]	**672.19**[11]02	**1790.10**[1]103

Capital Contributions in Prior Access Arrangement Period[1104]

Table 10 [1105]**Capital Contributions**[1106] **broken down by year (Nominal $Million)**[1107]

Asset to which a capital contribution related[1108]	2005[1109]	2006[1110]	2007[1111]	2008[1112]	2009[1113]	2010[1114]
Total[1115]	**1.94**[1116]	**0.00**[1117]	**0.08**[1118]	**0.00**[1119]	**21.27**[1120]	**14.66**[112]

						1

Depreciation Schedule for the Prior Access Arrangement Period [1122]

6.7. [1123]The depreciation schedule setting out the basis on which the pipeline assets constituting the capital base during the Prior Access Arrangement Period are depreciated is in Table 11.[1124]

Table 11 [1125]**Opening Capital Base Depreciation Schedule 2005 to 2010**[1126] **(Real $million, dollar values at 31 December 2009)** [1127]

Year ending 31 December [1128]	2005 [112]9	2006 [113]0	2007 [113]1	2008 [113]2	2009 [113]3	2010 [113]4	Total [1135]
Pipelines [1136]	32.40 [1137]	32.40 [1138]	32.40 [1139]	32.40 [1140]	32.40 [1141]	32.40 [1142]	**194.41** [1143]
Compression [1144]	15.80 [1145]	15.80 [1146]	15.80 [1147]	15.80 [1148]	15.80 [1149]	15.80 [1150]	**94.79** [1151]
Metering [1152]	0.64 [1153]	0.64 [1154]	0.64 [1155]	0.64 [1156]	0.64 [1157]	0.64 [1158]	**3.83** [1159]
Other [1160]	3.95 [1161]	3.95 [1162]	3.95 [1163]	3.95 [1164]	3.95 [1165]	3.95 [1166]	**23.72** [1167]
Total [1168]	**52.79** [1169]	**52.79** [1170]	**52.79** [1171]	**52.79** [1172]	**52.79** [1173]	**52.79** [1174]	**316.75** [1175]

6.8. [1176]As outlined in the Current Access Arrangement, for the purposes of rule 84 of the NGR, the amount of any Non-Conforming Capital Expenditure is, to the extent that expenditure is not to be recovered through a Surcharge on Shippers or a Capital Contribution, to be added to a notional fund and dealt with in accordance with rule 84(2) and rule 84(3) of the NGR.[1177]

7. [1178]

PROJECTED CAPITAL BASE [R. 72(1)(c)][1179]

7.1. [1180]The Projected Capital Base for the Current Access Arrangement Period is calculated, in accordance with rule 78 of the NGR, by way of the following formula:[1181]

(a) [1182]the Opening Capital Base for the Current Access Arrangement Period;[1183]

plus[1184]

(b) [1185]forecast conforming capital expenditure for the Current Access Arrangement Period (including forecast capital expenditure to which Shippers are expected to have contributed) – Table 12 summarises this forecast expenditure;[1186]

less[1187]

(c) [1188]forecast of depreciation for the Current Access Arrangement Period.[1189]

7.2. [1190]There is no forecast value of pipeline assets to be disposed during the Current Access Arrangement Period.[1191]

7.3. [1192]Applying the above formula in clause 7.1, the Projected Capital Base for each year of the Current Access Arrangement Period is outlined in Table 15.[1193]

7.4. [1194]The derivation of the values for each element of the above formula in clause 7.1 for establishing the Projected Capital Base is explained in the remainder of this section of the AAI.[1195]

Forecast Conforming Capital Expenditure 2011 to 2015[1196]

7.5. [1197]Forecast conforming capital expenditure for the Current Access Arrangement Period is summarized in Table 12.[1198]

Table 12 [1199]**Forecast Conforming Capital Expenditure by asset class 2011 to 2015**[1200]

Year ending 31 December[1201]	**2011**[1202]	**2012**[1203]	**2013**[1204]	**2014**[1205]	**2015**[1206]	**Total**[1207]
Pipelines[1208]	15.40[1209]	8.39[1210]	3.88[1211]	4.62[1212]	7.81[1213]	**40.11**[1214]
Compression[1215]	8.27[1216]	0.49[1217]	2.66[1218]	2.66[1219]	0.16[1220]	**14.22**[1221]
Metering[1222]	5.57[1223]	4.35[1224]	4.71[1225]	0.62[1226]	0.82[1227]	**16.06**[1228]
Other depreciable assets[1229]	40.86[1230]	4.74[1231]	4.15[1232]	6.75[1233]	6.15[1234]	**62.67**[1235]
Non-depreciable assets[1236]	0.00[1237]	0.00[1238]	0.00[1239]	0.00[1240]	0.00[1241]	**0.00**[1242]
Sub Total[1243]	**70.11**[1244]	**17.97**[1245]	**15.39**[1246]	**14.64**[1247]	**14.93**[1248]	**133.06**[1249]
Capital Expenditure contributed by Shippers[1250]						
Pipelines[1251]	0.00[1252]	0.00[1253]	0.00[1254]	0.00[1255]	0.00[1256]	**0.00**[1257]
Compression[1258]	0.00[1259]	0.00[1260]	0.00[1261]	0.00[1262]	0.00[1263]	**0.00**[1264]
Metering[1265]	0.23[1266]	2.66[1267]	1.44[1268]	0.00[1269]	0.00[1270]	**4.32**[1271]
Other depreciable assets[1272]	0.00[1273]	0.00[1274]	0.00[1275]	0.00[1276]	0.00[1277]	**0.00**[1278]

Sub Total[1279]	0.23[1280]	2.66[1281]	1.44[1282]	0.00[1283]	0.00[1284]	4.32[1285]
TOTAL[1286]	70.34[1287]	20.63[1288]	16.84[1289]	14.64[1290]	14.93[1291]	137.38[1292]

7.6. [1293]The basis of this forecast of conforming capital expenditure is:[1294]

(a) [1295]There will be no expansion of the capacity of the DBNGP during the Current Access Arrangement Period;[1296]

(b) [1297]The forecast expenditure relating to the overhauls of gas turbines that form part of the DBNGP will be capitalised;[1298]

(c) [1299]The amounts contained in this forecast are the minimum amounts required to ensure the Operator:[1300]

(i) [1301]Maintains and improves the safety of pipeline services;[1302]

(ii) [1303]Maintains the integrity of pipeline services; [1304]

(iii) [1305]Complies with the regulatory obligations or requirements applicable to the DBNGP; or[1306]

(iv) [1307]Maintains its capacity to meet levels of demand for pipeline services existing at the time the capital expenditure is forecast to be incurred (as distinct from projected demand that is dependent on an expansion of pipeline capacity). In this regard, the forecast demand is outlined in section 8 of this AAI.[1308]

Forecast [1309]***Depreciation*** [1310]~~**2005 to 2010**~~[1311]***Schedule - 2011 to 2015*** [1312]

7.7. A separate depreciation schedule has been determined for each of the ~~four groups~~[1313]4 classes[1314] of physical assets that form the DBNGP~~. These four groups~~[1315], these 4 asset classes[1316] are:

(a) ~~(a)~~ [1317]pipeline assets;

(b) ~~(b)~~ [1318]compressor station assets;

(c) ~~(c)~~ [1319]metering assets; and

(d) ~~(d)~~ [1320]other assets.

7.8. [1321]The depreciation schedule has been designed:[1322]

(a) [1323]so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services; [1324]

(b) [1325]so that each asset or group of assets is depreciated over the economic life of that asset or group of assets; [1326]

(c) [1327]so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets; [1328]

(d) [1329]so that (subject to the rules about capital redundancy), an asset is depreciated only once (i.e. that the amount by which the asset is depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base (adjusted for inflation)); and[1330]

(e) [1331]so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.[1332]

7.9. For the assets in each of the ~~four groups~~[1333] 4 asset classes[1334], depreciation ~~during the Access Arrangement Period~~ [1335]has been determined ~~by applying~~[1336] using[1337] the straight-line method~~.~~[1338] with the life of assets in each class as shown in table 13.[1339]

7.10. ~~Assumptions for asset lives for new assets, and remaining lives as at 31 December 2004 for assets in the Initial Capital Base as at 31 December 1999, are shown in Table 9.~~ [1340]

7.11. ~~New assets, created by New Facilities Investment, have been depreciated over the appropriate asset lives for new assets from Table 9.~~[1341]

7.12. ~~Compressor station assets existing at 31 December 1999 have been depreciated at a single weighted average asset life. This life is the weighted average of the remaining lives of each of the existing compressor stations at that date (as determined in the 23 May 2003 Final Decision of the Independent Gas Pipelines Access Regulator). In calculating the weighted average, each individual compressor station asset life has been weighted by the value assigned to the compressor station in the initial Capital Base.~~[1342]

7.13. ~~Metering assets existing at 31 December 1999 have, similarly, been depreciated at a single weighted average asset life.~~[1343]

7.14. [1344]The depreciation on each class of assets for the period 1999 to 2004 was the depreciation used in the determination of the reference tariff applicable during that period. Similarly, the depreciation on each class of assets for the period 2005 to 2010 was the depreciation used in the determination of the reference tariff applicable during that period.[1345]

7.15. [1346]The depreciation, for the Current Access Arrangement on the initial Capital Base as at 1 January 2000 and on Conforming Capital Expenditure made from 2000 to 2004, is determined using the straight line method with the following assumptions as to asset lives:[1347]

(a) [1348]In the case of the initial Capital Base as at 1 January 2000 – using the remaining asset lives for the four asset classes as follows:[1349]

(i) [1350]Pipeline assets – 54.50 years;[1351]

(ii) [1352]Compression assets – 19.34 years;[1353]

(iii) [1354]Meter station assets – 39.98 years;[1355]

(iv) [1356]Other assets – 16.85 years; and[1357]

(b) [1358]In the case of Conforming Capital Expenditure made from 2000 to 2004 – using lives in each class of asset as shown in table 13.[1359]

7.16. [1360]The depreciation, for the Current Access Arrangement Period, on Conforming Capital Expenditure made in 2005 to 2010 has been determined using the straight line method with the lives in each class of asset as shown in table 13.[1361]

7.17. [1362]The depreciation for the Current Access Arrangement Period on forecast Conforming Capital Expenditure for that period has been determined using the straight line method with the lives in each class of asset shown in table 13.[1363]

Table 13 [1364] **Asset Lives** [1365]

~~Table 9.~~ [1366] Asset [1367] ~~Lives~~ [1368]	Asset Life (years) [1369]
~~Asset~~ [1370]	~~Asset Life (years)~~ [1371] / ~~Average Remaining Asset Life at 31 December 2004 (years)~~ [1372]
Pipeline assets [1373]	70 [1374] / ~~49.50~~ [1375]
Compression assets [1376]	30 [1377] / ~~19.60~~ [1378]
Metering assets [1379]	50 [1380] / ~~38.50~~ [1381]
Other depreciable assets [1382]	30 [1383] / ~~11.85~~ [1384]

7.18. Table ~~10~~ [1385] 14 [1386] shows the depreciation schedule for each class of assets comprising the Capital Base. It sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining the Reference Tariff. [1387]

~~**Table 10. Depreciation Schedule 2005 to 2010** [1388]~~

~~Year ending 31 December~~ [1389]	~~2005~~ [1390]	~~2006~~ [1391]	~~2007~~ [1392]	~~2008~~ [1393]	~~2009~~ [1394]	~~2010~~ [1395]
~~Real $million, dollar values at 31 December 2004~~ [1396]						
~~Pipeline assets~~ [1397]	~~27.39~~ [1398]	~~27.46~~ [1399]	~~27.54~~ [1400]	~~31.17~~ [1401]	~~35.08~~ [1402]	~~36.28~~ [1403]
~~Compression assets~~ [1404]	~~12.54~~ [1405]	~~12.61~~ [1406]	~~14.90~~ [1407]	~~18.81~~ [1408]	~~20.16~~ [1409]	~~20.17~~ [1410]
~~Metering assets~~ [1411]	~~0.60~~ [1412]	~~0.62~~ [1413]	~~0.64~~ [1414]	~~0.65~~ [1415]	~~0.65~~ [1416]	~~0.65~~ [1417]
~~Other depreciable assets~~ [1418]	~~3.67~~ [1419]	~~3.80~~ [1420]	~~3.91~~ [1421]	~~3.96~~ [1422]	~~4.14~~ [1423]	~~4.36~~ [1424]
~~Total~~ [1425]	~~44.19~~ [1426]	~~44.48~~ [1427]	~~46.99~~ [1428]	~~54.58~~ [1429]	~~60.03~~ [1430]	~~61.45~~ [1431]

~~4.7 Roll Forward of the Capital Base 2005 to 2010~~ [1432]

Table 14 [1433] **Depreciation Schedule 2011 to 2015** [1434]

Year ending 31 December [1435]	2011 [1436]	2012 [1437]	2013 [1438]	2014 [1439]	2015 [1440]
Real $million, dollar values at 31 December 2009 [1441]					
Pipeline assets [1442]	49.59 [1443]	49.81 [1444]	49.93 [1445]	49.98 [1446]	50.05 [1447]
Compression assets [1448]	33.47 [1449]	33.74 [1450]	33.76 [1451]	33.85 [1452]	33.94 [1453]
Metering assets [1454]	1.25 [1455]	1.37 [1456]	1.51 [1457]	1.63 [1458]	1.64 [1459]
Other depreciable assets [1460]	7.79 [1461]	9.15 [1462]	9.31 [1463]	9.45 [1464]	9.67 [1465]
Total [1466]	**92.10** [1467]	**94.07** [1468]	**94.50** [1469]	**94.91** [1470]	**95.30** [1471]

Projected Capital Base Calculation [1472]

7.19. [1473]Table 15 is the application of the formula for the establishment of the Projected Capital Base for each year of the Current Access Arrangement Period, as outlined in section 7.1.[1474]

Table 15 [1475]**Projected Capital Base**[1476]

Year[1477]	**2011**[1478]	**2012**[1479]	**2013**[1480]	**2014**[1481]	**2015**[1482]
Capital Base (as at 1 Jan)[1483]	3352.16[1484]	3330.41[1485]	3256.97[1486]	3179.30[1487]	3099.03[1488]
Plus[1489]					
Forecast Conforming Capital Expenditure[1490]	70.11[1491]	17.97[1492]	15.39[1493]	14.64[1494]	14.93[1495]
Forecast Capital Contributions[1496]	0.23[1497]	2.66[1498]	1.44[1499]	0.00[1500]	0.00[1501]
Less[1502]					
Forecast Depreciation[1503]	92.10[1504]	94.07[1505]	94.50[1506]	94.91[1507]	95.30[1508]
Forecast Asset Disposals[1509]					
Projected Capital Base (as at 31 Dec)[1510]	**3330.41**[1511]	**3256.97**[1512]	**3179.30**[1513]	**3099.03**[1514]	**3018.67**[1515]

8. [1516]

FORECAST PIPELINE CAPACITY AND UTILISATION [R. 72 (1)(c)(ii)][1517]

8.1. [1518]Table 16 details the forecast of the Pipeline Capacity over the Current Access Arrangement Period.[1519]

Table 16 [1520]**Forecast of Pipeline Capacity**[1521]

Year ending 31 December[1522]	2011[1523]	2012[1524]	2013[1525]	2014[1526]	2015[1527]
Full Haul[1528]					
Pipeline capacity (TJ/day)[1529]	869[1530]	888[1531]	888[1532]	888[1533]	888[1534]

8.2. [1535]The Pipeline Capacity of the DBNGP is determined based on the following assumptions:[1536]

(a) [1537]For delivery of Full Haul pipeline services[1538]

(b) [1539]The gas composition is as follows:[1540]

A. [1541]Higher Heating Value – 37.0 MJ/m^3.[1542]

B. [1543]Wobbe Index - 46.5MJ/m^3 ;[1544]

C. [1545]the percentage content of Inert Gases of no greater than 6.39%;[1546]

D. [1547]no LPG content;[1548]

(c) [1549]the ambient conditions on the DBNGP from Compressor Station 1 to Compressor Station 9 are average conditions for the month of January;[1550]

(d) [1551]gas is being delivered for receipt into the DBNGP at existing inlet points;[1552]

(e) [1553]the designed inlet pressure at the inlet point known as I1-01 is 8MPa; and[1554]

(f) [1555]all compressor units are operating.[1556]

8.3. [1557]However, it is important to note that the Pipeline Capacity is not an indication of:[1558]

(a) [1559]the actual Capacity of the DBNGP on any given day;[1560]

(b) [1561]the available firm Full Haul capacity of the DBNGP during the Current Access Arrangement Period; or[1562]

(c) [1563]the available Part Haul Forward Haul capacity of the DBNGP during the Current Access Arrangement Period.[1564]

8.4. [1565]Table 17 outlines the forecast of the Capacity of the DBNGP that remains contracted for certain pipeline services during the Current Access Arrangement Period, and forecasts of the volumes of Contracted Capacity expected by the Operator to be used by Shippers of these pipeline services.[1566]

Table 17 [1567] **Forecast of Demand for Services** [1568]

Year ending 31 December [1569]	2011 [1570]	2012 [1571]	2013 [1572]	2014 [1573]	2015 [1574]
Full Haul [1575]					
Contracted capacity (TJ/day) [1576]	851.3 [1577]	860.3 [1578]	860.3 [1579]	860.3 [1580]	860.3 [1581]
Throughput (TJ/day) [1582]	703.1 [1583]	718.8 [1584]	719.7 [1585]	725.8 [1586]	732.5 [1587]
Part Haul (forward haul) [1588]					
Contracted capacity (TJ/day) [1589]	215.4 [1590]	215.4 [1591]	215.4 [1592]	215.4 [1593]	215.4 [1594]
Throughput (TJ/day) [1595]	191.5 [1596]	189.7 [1597]	189.7 [1598]	189.7 [1599]	189.7 [1600]
Back Haul [1601]					
Contracted capacity (TJ/day) [1602]	130.0 [1603]	130.0 [1604]	130.0 [1605]	130.0 [1606]	130.0 [1607]
Throughput (TJ/day) [1608]	112.3 [1609]	112.3 [1610]	112.3 [1611]	112.3 [1612]	112.3 [1613]

8.5. [1614] The firm Full Haul capacity of the DBNGP is fully contracted for the duration of the Current Access Arrangement Period. [1615]

8.6. [1616] Whether the Part Haul capacity of the DBNGP is fully contracted for the duration of the Current Access Arrangement Period will depend on a number of factors. So it is not practical to forecast it in this AAI. [1617]

9. [1618]

FORECAST OPERATING EXPENDITURE [R. 71(1)(e)][1619]

9.1. [1620]Forecast operating expenditure over the Current Access Arrangement Period is shown in Table 18.[1621]

Table 18 [1622]**Forecast Operating Expenditure 2011 to 2015**[1623]

Year ending 31 December[1624]	2011[1625]	2012[1626]	2013[1627]	2014[1628]	2015[1629]
Nominal $million, dollar values at end of year[1630]					
Recurrent costs[1631]					
Wages & Salaries[1632]	27.0[1633]	28.3[1634]	29.5[1635]	30.9[1636]	32.3[1637]
Non-Field Expense[1638]	18.4[1639]	18.9[1640]	19.4[1641]	20.5[1642]	21.0[1643]
Field Expense[1644]	19.1[1645]	19.6[1646]	20.1[1647]	20.6[1648]	21.1[1649]
Government Charges[1650]	20.0[1651]	21.3[1652]	22.1[1653]	23.3[1654]	24.5[1655]
Reactive Maintenance[1656]	1.2[1657]	1.2[1658]	1.3[1659]	1.3[1660]	1.3[1661]
Fuel gas (full haul)[1662]	20.9[1663]	22.7[1664]	23.1[1665]	26.1[1666]	27.3[1667]
Total OPEX[1668]	**106.8**[1669]	**112.0**[1670]	**115.5**[1671]	**122.6**[1672]	**127.4**[1673]

9.2. [1674]There are six categories of operating expenditure used in the forecast:[1675]

(a) [1676]Wages & Salaries[1677]

(b) [1678]Non-Field Expenditure[1679]

(c) [1680]Field Expenditure[1681]

(d) [1682]Government Charges[1683]

(e) [1684]Reactive Maintenance[1685]

(f) [1686]Fuel Gas[1687]

9.3. ~~The Capital Base has been rolled forward to 31 December 2004~~[1688]Each Category is explained[1689] as follows:

~~(a) commencing with the Capital Base of $1,618.37 million on 31 December 2004;~~[1690]

~~(b) forecast New Facilities Investment during the initial Access Arrangement Period has been expressed in 31 December 2004 prices, and added to the Capital Base; and~~[1691]

~~(d) depreciation for the 2005 to 2010 Access Arrangement Period has been subtracted.~~[1692]

~~The roll forward of the capital base to 31 December 2010 is shown in Table 11.~~[1693]

(a) [1694]Salaries and Wages covers salaries of the Operator's employees and contractors.[1695]

(b) [1696]Non Field Expenditure covers expenditure in connection with fees payable under the operating services agreement, IT expenses, insurance costs, office and administration, an allowance for self insurance costs and forecast regulatory expenditure.[1697]

(c) [1698]Field Expenditure covers motor vehicle expenses, repairs and maintenance to all field equipment, training and development expenses, travel and accommodation and compressor turbine and GEA overhauls.[1699]

(d) [1700]Government Charges cover the expenditure to be levied by government and statutory agencies under such legislation as the preposed CPRS, the Dampier to Bunbury Pipeline Act, Council rates and charges and various environmental legislation. [1701]

(e) [1702]Reactive Maintenance covers expenditure for unplanned and unbudgeted repairs and maintenance for plant and equipment.[1703]

(f) [1704]Fuel Gas covers expenditure to be incurred by the Operator in purchasing fuel gas requires to operate and maintain the pipeline in a manner that ensures the forecast demand for pipeline services, as outlined in section 8, can be supplied in the most efficient fashion.[1705]

9.4. [1706]The forecast operating expenditure for recurrent items has been derived from the Operator's internal business planning and budgeting processes which are conducted annually and have a 5 yearly focus. The forecast represents the lowest sustainable cost of providing pipeline services by a prudent service provider acting efficiently.[1707]

9.5. [1708]The forecast for fuel gas expenditure is based on:[1709]

(a) [1710]gas prices Operator pays for the supply of system use gas to enable it to maintain and operate the DBNGP; and[1711]

(b) [1712]the system use gas required to operate and maintain the pipeline in a manner that ensures the forecast demand for pipeline services, as outlined in section 8 (assuming that the demand is for the Reference Service), can be supplied in the most efficient fashion.[1713]

9.6. [1714]The forecast for reactive maintenance expenses is an average of Operator's actual expenditure incurred for unplanned and unbudgeted repairs and maintenance for plant and equipment.[1715]

10. [1716]

KEY PERFORMANCE INDICATORS [R. 72(1)(f)][1717]

10.1. [1718]One key performance indicator supports the expenditure to be incurred during the Current Access Arrangement Period. That indicator is to compare the forecast operating expenditure for each year against the actual forecast operating expenditure (except for the expenditure items listed below) for that same year of the Current Access Arrangement Period:[1719]

(a) [1720]forecast expenditure for fuel gas; and[1721]

(b) [1722]forecast expenditure for government imposts.[1723]

Table 11. Projected Roll-Forward of the Capital Base[1724]

Year ending 31 December[1725]	2005[1726]	2006[1727]	2007[1728]	2008[1729]	2009[1730]	2010[1731]
Real $million, dollar values at 31 December 2004[1732]						
Capital Base at beginning of year[1733]	1,618.37[1] 734	1,587.51[1] 735	1,621.97[1] 736	1,948.26[1] 737	2,213.52[1] 738	2,243.99[1] 739
New Facilities Investment[1740]	13.33[1741]	78.94[1742]	373.28[174] 3	319.84[174] 4	90.50[1745]	151.25[174] 6
Depreciation[1747]	44.19[1748]	44.48[1749]	46.99[1750]	54.58[1751]	60.03[1752]	61.45[1753]
Capital Base at end of year[1754]	1,587.51[1] 755	1,621.97[1] 756	1,948.26[1] 757	2,213.52[1] 758	2,243.99[1] 759	2,333.78[1] 760

4.8 Rate of Return[1761]

10.2. [1762]The reasons for why it is relevant to include this KPI as stated in clause 10.2 are:[1763]

(a) [1764]the firm full haul capacity of the DBNGP is fully contracted for the Current Access Arrangement Period under Access Contracts for non reference services;[1765]

(b) [1766]the tariffs payable under these non reference service Access Contracts are structured in such a way that the Operator is incentivised to reduce its operating expenditure to the lowest sustainable costs;[1767]

(c) [1768]the non reference services are structured in a way that the Operator has limited control of the throughput on the DBNGP and therefore, expenditure for fuel gas will be largely driven by the throughput requirements of Shippers; and[1769]

(d) [1770]there has been a significant increase in government imposts since 2005 and the Operator is forecasting a continued steep increase in this type of expenditure during the Current Access Arrangement Period. Operator has limited control over the level of government imposts imposed on it.[1771]

11. [1772]

RATE OF RETURN [R. 72 (1)(g)][1773]

Rate of Return[1774]

11.1. [1775]The Rate of Return used to determine the Total Revenue and therefore the Reference Tariff has been set in accordance with the requirements of Rule 87 of the NGR.[1776]

11.2. [1777]The Rate of Return to be used in determining Total Revenue for each year of the Current Access Arrangement Period is 10.76% (real, pre-tax).[1778]

Assumptions on which the Rate of Return is calculated[1779]

11.3. The Rate of Return ~~for the Access Arrangement Period~~[1780] has been established as a [1781]pre-tax ~~real~~ [1782]weighted average of the ~~returns applicable to debt and equity~~[1783]cost of equity and the cost of debt[1784].

11.4. [1785]Both the cost of equity and the cost of debt are commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. The Rate of Return therefore satisfies the criteria of rule 87(1).[1786]

Assumptions on which the cost of equity was based[1787]

11.5. [1788]The cost of equity was determined from:[1789]

(a) [1790]the results obtain from four well accepted financial models; and[1791]

(b) [1792]an examination of equity analysts' dividend yield forecasts for the period 2010 to 2012 for comparable Australian infrastructure businesses.[1793]

11.6. [1794]The four well accepted financial models, and the estimates of the cost of equity which were obtained from them are set out in Table 19.[1795]

11.7. [1796]Each of the well accepted financial models incorporates only a limited characterisation of risk and may not, therefore, provide an estimate of the cost of equity which is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. That is, the estimate of the cost of equity from each of the models may not satisfy the criteria for the Rate of Return established in rule 87(1). To ensure that the criteria of rule 87(1) are satisfied, regard must be had to evidence as to the current market conditions.[1797]

1798

Table 19 [1799]**Estimates of the cost of equity**[1800]

Parameter[1801]		**Value**[1802]
Cost of equity (nominal):[1803]		
CAPM[1804]	$E_{CAPM}(r_e)$[1805]	8.79%[1806]
Black's CAPM[1807]	$E_{Black}(r_e)$[1808]	11.98%[1809]
Fama-French three factor model[1810]	$E_{FF}(r_e)$[1811]	11.57%[1812]
Zero beta Fama-French three factor model[1813]	$E_{ZBFF}(r_e)$[1814]	14.36%[1815]
Cost of debt (nominal)[1816]	$E(r_d)$[1817]	9.73%[1818]
Gearing (debt to total value)[1819]	D/V[1820]	60.00%[1821]
Tax rate[1822]	t[1823]	30.00%[1824]
Gamma[1825]	γ[1826]	0.2[1827]
Expected inflation[1828]	π^{e}[1829]	2.52%[1830]
Real pre-tax WACC[1831]		
Model used for estimating cost of equity:[1832]		
CAPM[1833]		7.75%[1834]
Black's CAPM[1835]		9.38%[1836]
Fama-French three factor model[1837]		9.17%[1838]
Zero beta Fama-French three factor model[1839]		10.60%[1840]

11.8. [1841]Evidence on current market conditions is provided by equity analysts' forecasts of dividend yields. The average of equity analysts' dividend yield forecasts for comparable Australian infrastructure businesses over the period 2010 to 2012 was 10.5%. Equity investors investing in the benchmark service provider would, in these circumstances, be expecting to earn a return of at least 10.5%. Those investors would also expect some share price appreciation. The current expectation of inflation, 2.52%, is a conservative estimate of this appreciation. With the likely improvement in market conditions following the global financial crisis, an expectation of further - real - growth in the yields from infrastructure businesses, of at least 1.00%, is reasonable. Accordingly, current market information indicates a cost of equity between 13.0% and 14.0%.[1842]

11.9. [1843]A ~~pre-tax real~~[1844] cost of equity which is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services is in these circumstances:[1845]

(a) [1846]not as low as the cost of equity estimated using the CAPM; and[1847]

(b) [1848]higher than the cost of equity estimated using Black's CAPM and the Fama-French model; and[1849]

(c) [1850]is likely to be in the range 13.0% to 14.4%.[1851]

11.10. [1852]The cost of equity to be used in establishing the Rate of Return was therefore set at 13.50%. [1853]

Assumptions on which the cost of debt was based[1854]

11.11. [1855]The cost of debt used in establishing the Rate of Return was 9.73%.[1856]

11.12. [1857]This estimate of the cost of debt was built-up from the costs which a benchmark service provider (with credit rating in the BBB range) was likely to incur in sourcing debt finance from the 5 year Australian Bank Market (28.6%), the 7 year Australian Bank Market (9.5%), the 7 year Australian Bond Market (9.5%), the 10 year US Public Market (33.3%), and the 10 year US Private Placement Market (19.0%).The cost of debt has been estimated as the bank bill swap rate (**BBSW**) plus lender's margin, and transaction and other costs, some of which may be specific to particular markets.[1858]

11.13. [1859]Build up of the cost of debt, in the same way that that cost is built up by lenders, using current market data for a benchmark service provider, provides an estimate which is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.[1860]

Other assumptions for calculation of a real pre-tax WACC[1861]

11.14. [1862]Other assumptions made for the calculation of a real pre-tax[1863] weighted average cost of capital ~~of 7.24 per cent has been used in calculation of Total Revenue.~~[1864]

~~5. INFORMATION REGARDING NON CAPITAL COSTS~~[1865]

~~5.1 Fixed versus variable costs~~[1866]

~~The costs associated with the operation and maintenance of a gas transmission pipeline system are predominantly fixed. For a given pipeline configuration, capital costs, pipeline operating and maintenance costs and, to a lesser extent, compressor maintenance costs, do not vary materially with the volume of gas delivered to shippers. The only truly variable costs are the costs of fuel gas.~~[1867]

~~When the capacity of the DBNGP is expanded (implementing a new pipeline configuration), the level of these fixed costs will rise.~~[1868]

~~5.2 Forecast Non Capital Costs~~[1869]

~~Forecast Non Capital Costs for the Access Arrangement Period are shown in Table 12.~~[1870]

~~Table 12. Forecast Non Capital Costs 2005 to 2010~~[1871]

~~Year ending 31 December~~[1872]	~~2005~~[187]3	~~2006~~[187]4	~~2007~~[187]5	~~2008~~[187]6	~~2009~~[187]7	~~2010~~[187]8	~~Total~~[187]9
~~Nominal $million, dollar values at end of year~~[1880]							
~~Wages and salaries~~[1881]	~~5.38~~[1882]	~~5.63~~[1883]	~~5.89~~[1884]	~~6.17~~[1885]	~~6.46~~[1886]	~~6.76~~[1887]	~~36.29~~[188]8
~~Materials and services~~[1889]	~~35.83~~[189]0	~~34.33~~[189]1	~~47.94~~[189]2	~~46.44~~[189]3	~~44.82~~[189]4	~~46.69~~[189]5	~~256.05~~[18]96
~~Corporate overheads~~[1897]	~~0.00~~[1898]	~~0.00~~[1899]	~~0.00~~[1900]	~~0.00~~[1901]	~~0.00~~[1902]	~~0.00~~[1903]	~~0.00~~[1904]
~~Fuel gas~~[1905]	~~19.84~~[190]6	~~20.38~~[190]7	~~30.04~~[190]8	~~32.24~~[190]9	~~33.07~~[191]0	~~33.98~~[191]1	~~169.54~~[19]12
~~Total~~[1913]	~~61.05~~[191]4	~~60.34~~[191]5	~~83.87~~[191]6	~~84.85~~[191]7	~~84.35~~[191]8	~~87.43~~[191]9	~~462.26~~[19]20
~~Real $million, dollar values at 31 December 2004~~[1921]							

~~Wages and salaries~~[1922]	~~5.24~~[1923]	~~5.34~~[1924]	~~5.44~~[1925]	~~5.55~~[1926]	~~5.66~~[1927]	~~5.77~~[1928]	~~**32.99**~~[1929]
~~Materials and services~~[1930]	~~34.90~~[1931]	~~32.56~~[1932]	~~44.27~~[1933]	~~41.76~~[1934]	~~39.25~~[1935]	~~39.82~~[1936]	~~**232.57**~~[1937]
~~Corporate overheads~~[1938]	~~0.00~~[1939]	~~0.00~~[1940]	~~0.00~~[1941]	~~0.00~~[1942]	~~0.00~~[1943]	~~0.00~~[1944]	~~**0.00**~~[1945]
~~Fuel gas~~[1946]	~~19.32~~[1947]	~~19.32~~[1948]	~~27.74~~[1949]	~~28.99~~[1950]	~~28.96~~[1951]	~~28.98~~[1952]	~~**153.32**~~[1953]
~~**Total**~~[1954]	~~**59.45**~~[1955]	~~**57.22**~~[1956]	~~**77.46**~~[1957]	~~**76.31**~~[1958]	~~**73.87**~~[1959]	~~**74.57**~~[1960]	~~**418.88**~~[1961]

~~5.3 Total costs at corporate level~~[1962]

~~The DBNGP business is a stand-alone entity. The Non Capital Costs in Table 12 are, therefore, the total service provider costs at corporate level.~~[1963]

~~The business of the DBNGP is the provision of gas transportation services. There is, therefore, no allocation of costs between regulated and unregulated segments.~~[1964]

~~5.4 Gas used in operations~~[1965]

~~The cost of fuel gas is derived from estimates of the quantity of gas used in operations. The quantity of gas used in operations in each year of the Access Arrangement Period is an estimate of the quantity of gas used as compressor fuel during the year assuming steady state flow, plus an allowance of 5% for:~~[1966]

~~(a) additional compressor fuel used in accommodating variable flow rates;~~[1967]

~~(b) Gas used as fuel in gas engine alternators and heaters;~~[1968]

~~(c) Gas which is vented during maintenance activities; and~~[1969]

~~(d) Gas which is lost from the DBNGP.~~[1970]

~~6 TOTAL REVENUE~~[1971](WACC) were:[1972]

(a) [1973]gearing of 60% debt (the assumption made by Australian regulators setting access prices for regulated assets in the energy sector, an assumption which is consistent with the Operator's long term view of an appropriate financial structure);[1974]

(b) [1975]tax rate of 30% (the statutory tax rate, consistent with the ERA's past practice); and[1976]

(c) [1977]expected inflation of 2.52% (a geometric average of Reserve Bank of Australia forecasts of inflation for the next 10 years).[1978]

11.15. [1979]Only a proportion of the market equilibrium return to equity investors is provided by the business issuing equity. The remainder of the equity return is provided, through the taxation system, from imputation credits. If the value of those credits were set at 0.65, then, with a tax rate 30%, some 22% of the return to equity investors would be in the form of imputation credits. This would mean that non-resident investors, unable to use those credits, would receive a return that is 22% below the market equilibrium required return. In the current market for funds, non-resident investors provide a material amount of the equity which funds regulated infrastructure assets including gas transmission pipelines. Providing those investors with a return that is 22% below the market equilibrium required return is not commensurate with prevailing conditions in the market for funds. [1980]Therefore, no value has been assigned to imputation credits (the factor gamma has been assigned a value of zero) for the purpose of calculating a real pre-tax WACC[1981]

Demonstrating the way in which the Rate of Return has been calculated[1982]

11.16. [1983]The way in which the Rate of Return has been calculated is set out in Table 20.[1984]

Table 20 [1985]**Demonstration of calculation of the Rate of Return**[1986]

$WACC_{nominal\ post\text{-}tax} = E(r_e) \times ((1 - t)/(1 - t \times (1 - \gamma)) \times E/V + E(r_d) \times (1 - t) \times D/V$[1987]
$E(r_e)$ is the nominal post-tax expected rate of return on equity - the cost of equity[1988]
$E(r_d)$ is the nominal pre-tax expected rate of return on debt - the cost of debt[1989]
E/V is the proportion of equity in the total financing (which comprises equity and debt)[1990]
D/V is the proportion of debt in the total financing[1991]
t is the tax rate[1992]
γ (gamma) is the value of imputation credits[1993]
Divide by 1 - t to convert to nominal pre-tax:[1994]
$WACC_{nominal\ pre\text{-}tax} = E(r_e) \times (1/(1 - t \times (1 - \gamma)) \times E/V + E(r_d) \times D/V$[1995]
Apply Fisher equation to obtain real pre-tax WACC:[1996]
$WACC_{real\ pre\text{-}tax} = (1 + WACC_{nominal\ pre\text{-}tax})/(1 + \pi^e) - 1$[1997]
π^e is expected inflation[1998]

Parameter[1999]	**Estimate**[2000]
Cost of equity[2001]	13.50%[2002]
Cost of debt[2003]	9.73%[2004]
Gearing: equity to total value[2005]	40.00%[2006]
Gearing: debt to total value[2007]	60.00%[2008]
Tax rate[2009]	30.00%[2010]
Value of imputation credits (gamma)[2011]	0[2012]
Expected inflation[2013]	2.52%[2014]
WACC[2015]	
Nominal pre-tax WACC[2016]	13.55%[2017]
Real pre-tax WACC[2018]	10.76%[2019]

12. [2020]

METHOD FOR DEALING WITH TAXATION [R. 72 (1)(h)][2021]

12.1. [2022]An implicit allowance is made for the cost of corporate income tax through the use of a value for the Rate of Return that is determined on a pre-tax basis.[2023]

13. [2024]

NOT USED[2025]

This section is left intentionally blank[2026]

14. [2027]

TARIFF SETTING APPROACH [R. 72 (1)(j)][2028]

14.1. [2029]Subject to clause 14.3, the Reference Tariff (being the R1 Tariff) has been designed to recover from Shippers using the Reference Service that portion of the Total Revenue that reflects:[2030]

(a) [2031]those costs (including capital costs) which are directly attributable to the provision of the Reference Service; and [2032]

(b) [2033]a share of those costs (including capital costs) which are attributable to provision of the Reference Service jointly with Pipeline Services provided to other Shippers with contractual rights existing prior to the commencement of this Current Access Arrangement Period and other Pipeline Services which Operator considers are reasonably foreseeable to be offered during the Current Access Arrangement Period. [2034]

14.2. [2035]In determining the Reference Tariff for the R1 Service, costs have been allocated to the Services provided to Shippers with Access Contracts entered into prior to the commencement of the Current Access Arrangement Period, as if those Shippers had been provided with the Reference Service.[2036]

14.3. [2037]In accordance with section 12 of the Current Access Arrangement, [2038]the Operator and Nominees will not benefit, through increased revenue, from each amount of Funded Capital Expenditure that has been rolled into the Capital Base. So, subject to clause 12.4(b) of the Current Access Arrangement, [2039]the portion of the Total Revenue for each year of the Current Access Arrangement that equals the sum of the return on the Funded Capital Expenditure and the depreciation of the Funded Capital Expenditure will not be allocated to any pipeline service, including the Reference Tariff.[2040]

14.4. [2041]The Reference Tariff is designed:[2042]

(a) [2043]to generate from the provision of the Reference Service the portion of Total Revenue attributable to provision of the Reference Service; [2044]

(b) [2045]to generate from a Shipper or class of Shippers to which the Reference Service is provided, the portion of Total Revenue referable to providing the Reference Service to the Particular Shipper or class of Shippers; and[2046]

(c) [2047]consistently with the pricing and revenue principles in the NGL. [2048]

14.5. [2049]For the purpose of recovery of costs from Shippers and of earning the portion of Total Revenue attributable to the Reference Service, the Reference Tariff is divided into a two part tariff structure:[2050]

(a) [2051]R1 Capacity Reservation Tariff; and [2052]

(b) [2053]R1 Commodity Tariff. [2054]

R1 Capacity Reservation Tariff[2055]

14.6. [2056]The R1 Capacity Reservation Tariff for the Reference Service, when applied to determine the R1 Capacity Reservation Charge, recovers from each Reference Service Shipper a proportion of the return and depreciation on, and a proportion of the operating expenditure[2057] incurred in operating and maintaining, the DBNGP[2058] other than those

assets that make up the DBNGP for which a capital contribution has been made by a Shipper.[2059]

14.7. [2060]In accordance with the terms of the Access Contract Terms and Conditions:[2061]

(a) [2062]the Shipper must pay a R1 Capacity Reservation Charge for each Gas Day during the Period of Supply regardless of whether the Shipper provides Gas at any Inlet Point and regardless of whether the Shipper takes Gas at any Outlet Point; and[2063]

(b) [2064]the R1 Capacity Reservation Charge is the aggregate of the Shipper's Contracted Capacity for the Reference Service at each Outlet Point multiplied by the R1 Capacity Reservation Tariff.[2065]

14.8. [2066]The R1[2067] Capacity Reservation Tariff is a number of dollars per GJ of Contracted Capacity for the Reference Service[2068] and is:[2069]

(a) [2070]as at the commencement of the Current Access Arrangement Period - as specified in the Current Access Arrangement;[2071]

(b) [2072]otherwise varied in accordance with clause 11 of the Access Arrangement. [2073]

R1 Commodity Tariff[2074]

14.9. [2075]The R1 Commodity Tariff for the Reference Service, when applied to determine the Commodity Charge, recovers from the Shipper a proportion of the cost of the fuel gas used on the DBNGP.[2076]

14.10. [2077]In accordance with the terms of the Access Contract Terms and Conditions, the R1 Shipper must pay a R1 Commodity Charge for each Gas Day during the Period of Supply by calculating [2078]the multiple of the R1 Commodity Tariff and each GJ of Gas Delivered to the Shipper up to Contracted Capacity for R1 Services at all Outlet Points by the Operator on that Gas Day.[2079]

14.11. [2080]The R1[2081] Commodity Tariff is a number of dollars per GJ of gas actually Delivered to any [2082]Outlet Point on the DBNGP.[2083]

14.12. [2084]The R1 Shipper is required to pay Other Charges as required by the Access Contract Terms and Conditions.[2085]

14.13. [2086]The R1 Capacity Reservation Charge, the R1 Commodity Charge and all Other Charges, as determined in accordance with the Access Contract Terms and Conditions, are exclusive of GST.[2087]

14.14. [2088]Table 21[2089] shows the cost allocation to be recovered by the[2090] R1 Capacity Reservation and R1 Commodity components of the Reference Tariff.[2091]

2092

Table 21 [2093] **Cost Allocation derived by each component of the Reference Tariff (Real $million at 31 December 2009** [2094]

Year ending 31 December [2095]	2011 [2096]	2012 [2097]	2013 [2098]	2014 [2099]	2015 [2100]
Fuel Gas [2101]	19.91 [2102]	21.04 [2103]	20.95 [2104]	23.08 [2105]	23.51 [2106]
Other Components of Total Revenue [2107]	539.99 [2108]	540.61 [2109]	523.65 [2110]	517.23 [2111]	510.14 [2112]
Total [2113]	**559.90** [2114]	**561.65** [2115]	**544.60** [2116]	**540.31** [2117]	**533.65** [2118]
Present Value of Costs Recovered (discounted at the rate of return) [2119]					
by R1 Capacity Reservation Tariff [2120]	472.82 [2121]	432.36 [2122]	389.29 [2123]	351.47 [2124]	317.32 [2125]
by R1 Commodity Tariff [2126]	19.01 [2127]	17.58 [2128]	15.84 [2129]	14.42 [2130]	13.13 [2131]
Total [2132]	**491.83** [2133]	**449.94** [2134]	**405.13** [2135]	**365.89** [2136]	**330.45** [2137]

15. [2138]

REFERENCE TARIFF VARIATION MECHANISM RATIONALE [R. 72(1)(k)][2139]

15.1. [2140]Rule 92 of the NGR requires a Reference Tariff Variation Mechanism to be included in the Current Access Arrangement.[2141]

15.2. [2142]Rule 97 of the NGR provides that a Reference Tariff Variation Mechanism may provide for variation of a Reference Tariff:[2143]

(a) [2144]in accordance with a schedule of fixed tariffs;[2145]

(b) [2146]in accordance with a formula set out in the Current Access Arrangement; or[2147]

(c) [2148]as a result of a cost pass through for a defined event (such as a cost pass through for a particular tax).[2149]

15.3. [2150]The Current Access Arrangement contains a Reference Tariff Variation Mechanism that is made up of 4 parts – see section 11 of the Current Access Arrangement:[2151]

(a) [2152]CPI Formula Variation;[2153]

(b) [2154]Tax Changes Variation;[2155]

(c) [2156]New Costs Pass Through Variation; and[2157]

(d) [2158]Any variation mechanism that is otherwise included in the Reference Service Access Contract Terms and Conditions.[2159]

15.4. [2160]Rule 92(2) of the NGR requires each Reference Tariff Variation Mechanism to be designed to equalize (in terms of present values):[2161]

(a) [2162]forecast revenue from Reference Services over the Current Access Arrangement Period; and[2163]

(b) [2164]the portion of Total Revenue allocated to Reference Services for the Current Access Arrangement Period.[2165]

15.5. [2166]Rule 97 of the NGR also sets out criteria that the Reference Tariff Variation Mechanism must meet. They are that the Reference Tariff Variation Mechanism has regard to:[2167]

(a) [2168]the need for efficient tariff structures;[2169]

(b) [2170]the possible effects of the reference tariff variation mechanism on the administrative costs of the regulator, the service provider, and users or potential users;[2171]

(c) [2172]the regulatory arrangements (if any) applicable to the relevant reference services[2173] before the commencement of the [2174]proposed reference tariff variation mechanism;[2175]

(d) [2176]the desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction); and any other relevant factor.[2177]

15.6. [2178]Accordingly, each part of the Reference Tariff Variation Mechanism is justified against these criteria as follows:[2179]

15.7. [2180]In relation to the CPI Formula Variation formula:[2181]

(a) [2182]The Reference Tariff in the Current Access Arrangement is set using real, December 2009 values. Therefore, if the tariff components are not periodically varied for the effects of inflation during the Current Access Arrangement Period, the Operator will not have the opportunity of recovering its efficiently incurred – nominal - costs of providing Reference Services.[2183]

(b) [2184]The Current Access Arrangement provides for annual inflation adjustment of the reference tariff using the CPI, All Groups for Perth. This is appropriate given that most of the Operator's costs are incurred in Western Australia.[2185]

(c) [2186]The formula will not impact on the administrative costs of the Regulator.[2187]

(d) [2188]The formula is consistent with the variation mechanism in the Prior Access Arrangement Period and with variation mechanisms in access arrangements for other covered pipelines.[2189]

15.8. [2190]In relation to the Tax Change Variation formula:[2191]

(a) [2192]The Current Access Arrangement contains amounts for certain types of Taxes and Carbon Costs that are likely to be incurred by the Operator but does not contain amounts:[2193]

(i) [2194]where the precise quantum of the costs is not certain; and[2195]

(ii) [2196]where those uncertain costs are expected to be significant in their quantum.[2197]

(b) [2198]Therefore there is a significant risk that without this formula:[2199]

(i) [2200]if an amount is not included or an insufficient amount is included, the Operator would be adversely affected and not be able to recover its costs; or[2201]

(ii) [2202]if an amount is included and this amount is significantly larger in quantum than the actual expenditure for this item, the Operator would recover more than its costs for providing the Reference Services.[2203]

(c) [2204]So, this formula will ensure that forecast revenue from Reference Services over the Current Access Arrangement Period will be equalised (in terms of present values) with the portion of Total Revenue allocated to the Reference Service for the Current Access Arrangement Period.[2205]

(d) [2206]In the case of Carbon Costs, at the time of approval of the Current Access Arrangement, the federal government has tabled a series of bills in the national parliament to give effect to an emissions trading scheme. Under the proposed legislation, the Operator (or Related Body Corporate of the Operator) will be subject to liability in relation to greenhouse gas emissions from the operation of the DBNGP. So, there is a very high likelihood that Carbon Costs will need to be included in operating expenditure.[2207]

(e) [2208]In the case of other Taxes, there is a requirement for a review to be undertaken of the fees payable to the State under the Dampier to Bunbury Pipeline Act 1998 in relation to rights granted to the Operator for the use of the DBNGP corridor. The State has issued invoices to the Operator for a revised fee although these are previously under review by the State.[2209]

(f) [2210]It is therefore appropriate that a formula be included to ensure there is no under recovery or over recovery of amounts for such Tax Changes and that Shippers are reimbursed for any over recovery.[2211]

15.9. [2212]In relation to the New Costs Pass Through Variation:[2213]

(a) [2214]It allows the Operator to recover certain costs which are beyond its control, and which could not be predicted with any great certainty prior to the time at the revisions to the Current Access Arrangement was approved. [2215]

(b) [2216]This is an efficient tariff structure as the Operator will neither over-recover nor under-recover, and the Shipper will pay a Reference Tariff that reflects the costs of providing the Reference Service.[2217]

(c) [2218]The Operator has recently experienced a situation where it was asked to pay a significant increase in the price of system use gas it needs to operate and maintain the DBNGP. Such a mechanism is efficient in that it would:[2219]

(i) [2220]avoid the risk that these expenses could not be passed on to Shippers;[2221]

(ii) [2222]reduce the consequences to the Operator and Shippers that could arise as a result of the adverse financial impact on the Operator; and[2223]

(iii) [2224]avoid the costs involved in renegotiating contracts with Shippers that would be required to otherwise allow the pass through of the increased expenses.[2225]

(d) [2226]This formula is largely consistent with regulatory arrangements in place for other transmission pipelines.[2227]

(i) [2228]In Western Australia, there is no other provider of services similar to the Reference Services provided by the Operator. There is, therefore, no issue of consistency between the Reference Tariff Variation Mechanism and regulatory arrangements for similar services.[2229]

16. [2230]

17. [2231]NOT USED[2232]

This has been left intentionally blank[2233]

18. [2234]

19. [2235]TOTAL REVENUE [R. 72(1)(m)][2236]

19.1. ~~6.1~~ [2237]Calculation [2238]~~Methodology~~[2239] of Total Revenue[2240]

(a) The Total Revenue for each year of the Current Access Arrangement Period [2241]has been calculated ~~by the Cost of Service methodology as described in section 8.4 of the Code, wherein the Total Revenue is equal to the cost of providing all Services (some of which may be the forecast of such costs), and with this cost to be calculated on the basis of:~~[2242] using the building block approach described in Rule 76 of the NGR.[2243]

(b) [2244]The Total Revenue for each year of the Current Access Arrangement Period has been calculated as the sum over the Current Access Arrangement Period of the costs in each year of the Current Access Arrangement Period that comprise the sum in each year of: [2245]

(i) ~~●~~ [2246]a return ~~(Rate of Return)~~ [2247]on the ~~value of the capital assets that form the Covered Pipeline or are otherwise used to provide Services (Capital Base);~~[2248] projected capital base for the year; [2249]

(ii) ~~●~~ [2250]depreciation ~~of the Capital Base (Depreciation); and~~[2251] on the projected capital base for the year; [2252]

~~● the operating, maintenance and other non capital costs incurred in providing all Services (Non Capital Costs).~~[2253]

~~The methodology has been applied on a real basis as described in section 8.5A(b) of the Code under which the Capital Base, Depreciation and all costs and revenues are expressed in constant prices and a real Rate of Return is allowed.~~[2254]

(iii) [2255](if any) increments or decrements for the year resulting from the operation of the incentive mechanism that existed in the Prior Access Arrangement; and[2256]

(iv) [2257]a forecast of operational expenditure for the year. [2258]

19.2. [2259]There are no amounts included in the Total Revenue calculation for each year of the Current Access Arrangement Period [2260]for the estimated cost of corporate income tax. [2261]

19.3. [2262]The Total Revenue for each year of [2263]the Current[2264] Access Arrangement Period is indicated in Table ~~13.~~[2265] 22. [2266]

~~**Table 13.**~~ [2267]

[Table 22](#) [2268]**Value of Total Revenue** ~~**derived by the Authority**~~ [2269]**(Real $million at 31 December** ~~**2004**~~[2270]**2009**[2271]**)**

~~**Year ending 31 December**~~[2272]	~~**2005**~~ [2273]	~~**2006**~~ [2274]	~~**2007**~~ [2275]	~~**2008**~~ [2276]	~~**2009**~~ [2277]	~~**2010**~~ [2278]
~~Return on Assets~~[2279]	~~117.13~~ [2280]	~~114.90~~ [2281]	~~117.39~~ [2282]	~~141.01~~ [2283]	~~160.21~~ [2284]	~~162.41~~ [2285]
~~Depreciation~~[2286]	~~44.19~~ [2287]	~~44.48~~ [2288]	~~46.99~~ [2289]	~~54.58~~ [2290]	~~60.03~~ [2291]	~~61.45~~ [2292]
~~Non Capital Costs~~[2293]	~~59.45~~ [2294]	~~57.22~~ [2295]	~~77.46~~ [2296]	~~76.31~~ [2297]	~~73.87~~ [2298]	~~74.57~~ [2299]
~~Total~~[2300]	~~220.78~~ [2301]	~~216.60~~ [2302]	~~241.84~~ [2303]	~~279.90~~ [2304]	~~294.10~~ [2305]	~~298.43~~ [2306]
~~**Present Value**~~ ~~**(Real discount rate of 7.24 per cent)**~~[2307]	~~**1,199.5**~~					

						3 2 3 0 8

Total Revenue is recovered from Reference Tariffs, the Capacity Reservation tariff component recovers all costs except for Fuel Gas cost, which is intended to be recovered by the application of the Commodity tariff component. The Fuel Gas cost represents 9.9 per cent of the Present Value of the Total Revenue determined by the Authority.[2309]

Table 14[2310] shows the cost allocation to be recovered by the[2311] Capacity Reservation and Commodity components of the Reference Tariff.[2312]

Table 14. Cost Allocation derived by the Authority (Real $million at 31 December 2004)[2313]

Year ending 31 December[2314]	2005[2315]	2006[2316]	2007[2317]	2008[2318]	2009[2319]	2010[2320]
Capacity Reservation[2321]	201.46[2322]	197.27[2323]	214.09[2324]	242.90[2325]	265.14[2326]	269.45[2327]
Commodity (Fuel Gas)[2328]	19.32[2329]	19.32[2330]	27.74[2331]	28.99[2332]	28.96[2333]	28.98[2334]
Total[2335]	220.78[2336]	216.60[2337]	241.84[2338]	271.90[2339]	294.10[2340]	298.43[2341]
Present Value (Real discount rate of 7.24 per cent)[2342]						
Capacity Reservation[2343]	1,080.81[2344]					
Commodity (Fuel Gas)[2345]	118.72[2346]					
Total[2347]	1,199.53[2348]					

7 INFORMATION REGARDING VOLUME ASSUMPTIONS[2349]

7.1 Forecast of Contracted Capacities and Volumes[2350]

Table 15 indicates the forecasts of capacity to be contracted during the Access Arrangement Period, and forecasts of the volumes of gas expected to be delivered using that contracted capacity. Part Haul and Back Haul volumes have been weighted by distance in relation to Full Haul distance to enable their representation as Full Haul Equivalents.[2351]

Table15. Forecast of Demand for Services

Year ending 31 December	2005	2006	2007	2008	2009	2010
Full Haul						
Contracted capacity (TJ/day)	593.22	613.22	688.96	743.87	761.11	798.74
Throughput (TJ/day)	571.97	590.68	658.52	712.45	729.02	763.56
Part Haul (forward haul)						
Contracted capacity (TJ/day)	73.88	73.80	73.45	62.70	62.70	62.70
Throughput (TJ/day)	54.57	54.46	54.09	43.84	43.84	43.84
Capacity Reservation, Full Haul Equivalent [TJ/day]	15.27	14.47	13.53	12.97	12.97	12.97
Throughput, Full Haul Equivalent [TJ/day]	13.98	13.16	12.20	11.65	11.65	11.65
Back Haul						
Contracted capacity (TJ/day)	66.08	109.20	112.20	112.20	112.20	112.20
Throughput (TJ/day)	62.65	109.20	112.20	112.20	112.20	112.20
Capacity Reservation, Full Haul Equivalent [TJ/day]	5.97	10.05	10.30	10.30	10.30	10.30
Throughput, Full Haul Equivalent [TJ/day]	5.69	10.05	10.30	10.30	10.30	10.30
Total Full Haul Equivalent						
Capacity Reservation [TJ/day]	614.46	637.74	712.79	767.14	784.37	822.01
Throughput [TJ/day]	591.64	613.89	681.03	734.40	750.97	785.51

8 INFORMATION REGARDING REFERENCE TARIFFS[2448]

The Reference Tariff is derived so that the Present Value of the forecast Annual Revenues equals the Present Value of the Total Revenue (Cost of Service) of $1,119.53 million.[2449]

Reference Tariffs for 2005 are as follows:[2450]

Table 16. Reference Tariffs derived by the Authority[2451]

Service and Charge[2452]	Tariff Charges 2005[2453]
Full Haul[2454]	
Capacity reservation charge ($/GJ MDQ)[2455]	0.899899[2456]
Commodity charge ($/GJ)[2457]	0.103122[2458]
Indicative total at 100% load factor ($/GJ)[2459]	1.003021[2460]
Part Haul and Back Haul[2461]	
Capacity reservation charge ($/GJ MDQ/km)[2462]	0.000643[2463]
Commodity charge ($/GJ/km)[2464]	0.000074[2465]
Indicative total at 100% load factor ($/GJ/km)[2466]	0.000717[2467]

Year ending 31 December[2468]	2011[2469]	2012[2470]	2013[2471]	2014[2472]	2015[2473]
Return on Projected Capital Base[2474]	356.665[2475]	354.376[2476]	346.257[2477]	337.828[2478]	329.279[2479]
Depreciation on the Projected Capital Base[2480]	91.39[2481]	93.36[2482]	93.74[2483]	94.12[2484]	94.51[2485]
Incentive Mechanism[2486]	10.22[2487]	9.97[2488]	0.00[2489]	0.00[2490]	0.00[2491]
Forecast Operating Expenditure[2492]	101.643[2493]	103.964[2494]	104.605[2495]	108.376[2496]	109.877[2497]
Total[2498]	**559.909**[2499]	**561.650**[2500]	**544.601**[2501]	**540.312**[2502]	**533.653**[2503]
Present Value (discounted at the rate of return)[2504]	**505.515**[2505]	**457.826**[2506]	**400.797**[2507]	**359.008**[2508]	**320.139**[2509]

2510

INTERPRETATION[2511]

[2512]Unless the context otherwise requires , terms used in capitals in this AAI have:[2513]

[2514]the meaning given in this section 18; [2515]

[2516]if no meaning is given in this section 18, the meaning given in the Current Access Arrangement or the Access Contract Terms and Conditions; and [2517]

[2518]if no meaning is given in this section 18 or in the Current Access Arrangement or the Access Contract Terms and Conditions, the meaning given in the NGA. [2519]

[2520]In this[2521] AAI:[2522]

AAI has the meaning given in clause 1.1.[2523]

Back Haul means a Pipeline Service where the Inlet Point is downstream of the Outlet Point on the DBNGP.[2524]

BBSW means the Australian Financial Markets Association's bank-bill reference rate, published daily on the Reuters monitor system.[2525]

CAPM means a model used to determine the cost of equity known as the (Sharpe-Lintner) capital asset pricing model.[2526]

Full Haul means a Pipeline Service where the Outlet Point is downstream of Compressor Station 9, regardless of the location of the Inlet Point, but does not include Back Haul.[2527]

KPI means key performance indicator.[2528]

Pipeline Capacity means the capacity to deliver pipeline services immediately downstream of Compressor Station 9 on the DBNGP, based on the assumptions outlined in paragraph 8.2.[2529]

Prior Access Arrangement Information has the meaning given to it in clause 1.2 of this AAI.[2530]

Prior Access Arrangement Period means the period to which the Prior Access Arrangement applied as indicated in Table 2 in clause 3.1 of this AAI.[2531]

Rate of Return means the rate, identified in clause 11.2 of this AAI, required for the purposes of establishing the Total Revenue and as determined under Rule 87 of the NGR.[2532]

~~For the years 2006 to 2011, the values of the Capacity reservation charge and Commodity charge are escalated by full CPI~~[2533]**Reference Tariff** means the reference tariff for the Reference Service and as outlined in the Current Access Arrangement, and as varied[2534] in accordance with ~~clause 7.11 of~~ [2535]the Current[2536] Access Arrangement.

~~The forecast expected Annual Revenues based on forecast capacity to be contracted during the Access Arrangement Period and forecasts of the volumes for the~~[2537]**Total Revenue** means the total revenue as determined for each regulatory year of the Current[2538] Access Arrangement Period ~~is shown in Table 17.~~[2539]by applying the formula in Rule 76 of the NGR.[2540]

Table 17. Forecast Annual Revenue[2541] **derived by the Authority (Real $million at 31 December 2004)**[2542]

Year ending 31 December[2543]	2005[2544]	2006[2545]	2007[2546]	2008[2547]	2009[2548]	2010[2549]
Capacity Reservation[2550]	196.44[2551]	203.88[2552]	227.87[2553]	245.92[2554]	250.76[2555]	262.79[2556]
Commodity (Fuel Gas)[2557]	21.67[2558]	22.49[2559]	24.95[2560]	26.98[2561]	27.51[2562]	28.78[2563]
Total[2564]	218.11[2565]	226.37[2566]	252.82[2567]	272.90[2568]	278.27[2569]	291.57[2570]
Present Value (Real discount rate of 7.24 per cent)[2571]						
Capacity Reservation[2572]	1,080.81[2573]					
Commodity (Fuel Gas)[2574]	118.72[2575]					
Total[2576]	1,199.53[2577]					

ANNEXURE 1[2578]

DBNGP SYSTEM:[2579]

DESCRIPTION OF THE GAS TRANSMISSION SYSTEM[2580]

(Note: Annexure 1 has been issued as a separate document)[2581]

WACC means the weighted average cost of capital approach.[2582]

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