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In trust for the Amadeus Gas Trust

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Amadeus Gas Pipeline

Submission

**Access Arrangement revision
proposal
2011-2016**

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Public



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1. Introduction

1.1. Purpose of this document

NT Gas has prepared this submission to provide additional information to the Australian Energy Regulator (AER) and interested parties on its access arrangement revision proposal for the Amadeus Gas Pipeline (AGP), lodged with the AER on 23 December 2010.

This is a public submission to the AER's access arrangement revision process for the AGP.

This submission sets out NT Gas' updated capital expenditure forecast for its enhanced integrity program and provides updates to the necessary components of the revenue building blocks taking account of these revised forecasts.

1.2. Basis of information in this submission

Unless otherwise stated, all information in this submission is provided in real 2009/10 dollars. Past values are brought to this basis using the Consumer Price Index (CPI) all groups, eight capital cities average March over March published by the Australian Bureau of Statistics (ABS).

This submission uses the convention established in the National Gas Rules (NGR) of referring to the *access arrangement period*, being for the AGP the period in which the revised access arrangement will apply (proposed to be the period between 1 July 2011 and 30 June 2016), and the *earlier access arrangement period*, being the period 1 July 2001 to 30 June 2011.



2. Capital expenditure

2.1. NT Gas' December 2010 capital expenditure proposal

NT Gas' capital expenditure for the earlier access arrangement period, and forecast capital expenditure for the access arrangement period, are reproduced in Table 2.2 and Table 2.1 respectively below.

Table 2.1 – Forecast capital expenditure by driver over the access arrangement period included in December 2010 proposal

\$ '000 (2009/10)	2011/12	2012/13	2013/14	2014/15	2015/16	Total
Expansion	0	0	0	0	0	0
Replacement	8,400	1,366	1,097	1,078	1,071	13,012
Non-system	106	106	412	107	314	1,046
Total	8,506	1,473	1,509	1,185	1,385	14,058

Capital expenditure forecasts for the final year of the earlier access arrangement period (2010/11) and for the access arrangement period (2011/12 to 2015/16) included expenditure associated with enhanced integrity works concentrated in 2010/11 and 2011/12. The submission also described the delivery framework for these projects, including a special project delivery structure and project team to assist in the delivery of the enhanced program. Total forecast capital expenditure for the enhanced integrity program over the 2010/11 and 2011/12 totalled \$18.2 million (\$2009/10).¹

The capital forecast also included two additional major capital projects that were not part of the integrity program, but that were to be delivered through the special project structure:

- Katherine meter station upgrade – forecast expenditure of \$7.5 million in 2010/11; and
- Channel Island meter station upgrade – forecast expenditure of \$0.6 million in 2010/11.

These forecasts represented NT Gas' the best forecast or estimate of project costs at the time, in accordance with section 74 of the NGR.²

¹ NT Gas 2010, *Amadeus Gas Pipeline Access Arrangement Revision Proposal submission*, December pp 66-8

² Hereinafter, a reference to a Rule shall, unless otherwise specified, be understood to refer to a Rule of the *National Gas Rules 2008 version 6*.



Table 2.2 – Capital expenditure by driver over the earlier access arrangement period included in December 2010 proposal

\$ '000 (2009/10)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F	Total
Expansion capital	0	0	0	0	0	0	0	0	361	7,032	7,392
Replacement capital	124	250	3,198	362	124	218	163	442	218	12,128	17,226
Non system capital	144	209	268	82	429	129	572	159	91	82	2,165
Total	268	459	3,466	444	553	347	734	601	670	19,242	26,783



2.2. Revised capital expenditure proposal

Since submission of NT Gas' December proposal, NT Gas' appointed special project manager has undertaken a detailed review of all projects, including project scopes and the delivery timetable, and developed a comprehensive plan for delivery of the projects, including detailed costings. This review of projects has yielded revised forecasts and timings for a number of projects compared to those submitted by NT Gas in December 2010.

2.2.1. Response to AER request for information

In January 2011 the AER sought further information on the projects from NT Gas including:

- Project expenditure to date;
- Remaining project expenditure; and
- Further details including detailed costings and timings for some projects.

In response to this request, NT Gas provided the AER with its updated forecasts and project timings determined by the specialist project manager. These updated forecasts are provided at Table 2.3 below. NT Gas also provided the AER with detailed project proposals including itemised project costings to support the revised forecast.

These updated forecasts also corrected for an error identified in the application of the labour escalator to capital expenditure. This led to a slight downward revision to routine replacement capital expenditure and non-system capital expenditure. This correction, as well as the revised proposed expenditure, is reflected in the revised capital expenditure forecasts for the earlier access arrangement period and the access arrangement period in Table 2.4 and Table 2.11 below.

2.2.2. Appropriate regulatory treatment of updated forecast

As can be seen from the updated forecast, significant forecast expenditure has been shifted from the earlier access arrangement period to the access arrangement period. In addition, the scope of many of the projects has changed.

In light of these revisions and the impact on the opening capital base and revenue for the access arrangement period, NT Gas considers that the revised forecasts below should be adopted by the AER as a revised forecast for the access arrangement period. NT Gas considers that the revised forecasts represent the best forecast or estimate of capital expenditure in the circumstances, and are consistent with Rule 79 requirements for capital expenditure.



Table 2.3 – Revised capital expenditure forecasts - enhanced integrity program

Projects	Updated forecast						Total
	\$'000 (2009/10), with labour escalation	2010/11	2011/12	2012/13	2013/14	2014/15	
Katherine Meter Station Upgrade	1,096	0	0	0	0	0	1,096
Channel Island Meter Station Upgrade	304	323	0	0	0	0	627
Palm Valley slamshut and filter	221	1,773	0	0	0	0	1,994
Channel Island Bridge project	1,303	2,376	4,420	0	0	0	8,099
Ultrasonic meter upgrade – Channel Island	29	526	0	0	0	0	555
Darwin City Gate oil vessel	39	90	0	0	0	0	129
Darwin City Gate Moisture Analyser	97	0	0	0	0	0	97
Darwin City Gate C9 GC	138	0	0	0	0	0	138
Hazardous Areas Assessment and equipment replacement	279	444	314	38	0	0	1,076
Heat Shrink Sleeve Replacement	387	104	0	0	0	0	491
Upgrade Elliott heaters	0	0	0	0	0	0	0
Bidirectional pigging	221	2,123	1,214	0	0	0	3,558
Cathodic Protection - Stage 2	1,011	2,588	632	0	0	0	4,230
Anchor block repairs	0	1,927	816	819	823	827	5,212
Below Ground Station Pipework Recoating	0	6,109	3,537	1,912	0	0	11,557
Total	5,126	18,382	10,933	2,769	823	827	38,860

Under Rule 58(3) the service provider may revise a full access arrangement proposal after an initiating notice has been published. This revision is subject to the AER's consent. The Law and Rules also provide for the making of submissions outside of the formal period for submissions.

As part of the AGP review process the AER has sought from NT Gas specific information regarding the costs and timing of project expenditure. This document replicates the information provided to the AER as a public submission.

NT Gas considers that the AER should take account of NT Gas' revised project forecasts provided in response to this information request. The alternative path whereby the AER does not accept these revised forecasts, or accepts only part of the revised forecast, would mean that the AER's draft and final decisions would not be based on the most accurate and up-to-date information available from the business and provided to the AER in the course of the preview process.



NT Gas therefore submits that the AER should consider NT Gas' updated project capital expenditure as constituting a revised forecast for the access arrangement period and consider it as part of the review process.

2.3. Additional information supporting revised integrity program forecast

As noted above, some projects have changed in scope from that described in the original access arrangement proposal submission. Significant changes to the program include:

- Reduction in Katherine meter station expenditure from proposed \$7.487 million in 2010/11 to \$1.096 million. This downward revision arises from PWC placing this project on hold pending further project development works. The reported expenditure represents costs already incurred on this project;
- Revision to the Palm Valley filtration and slamshut project arising from detailed analysis and costing of this project by the specialist project manager;
- Significantly changed scope to the Anchor block repair project. This project was initially conceived as involving relatively minor repairs to anchor blocks at Newcastle Waters and Palm Valley. Subsequent investigations have uncovered that coating defects are within the anchor blocks, requiring substantial repair. Direct Current Voltage Gradient (DCVG) surveys have uncovered defects in the vicinity of a further eight anchor blocks. The project scope has therefore been extended to repair of 10 anchor blocks over the access arrangement period;
- Removal of the Elliott heater replacement project due to a decision not to proceed with this project during the access arrangement period;
- Revision of the Below ground station pipework recoating project arising from detailed analysis and costing of this project by the specialist project manager; and
- Significant revisions to the engineering option required for the Southbound piggability (now called bidirectional pigging) project after detailed assessment of risks associated with the previously recommended option.

NT Gas has provided detailed project justifications, including costing information, for all projects making up the enhanced integrity program as a confidential attachment to this submission (Attachment A). NT Gas notes that these project justifications have previously been provided to the AER in response to its earlier request for information.



2.4. Necessary information to support revised forecast

NT Gas provides updated values for the components of the revenue building block to account for the updated project expenditure forecast. Except where expressly indicated, the methodologies used to derive these values are identical to those used in the original forecast.

All other components of NT Gas' original proposal remain unchanged, including forecasts for:

- pipeline demand, capacity and utilisation;
- operating expenditure; and
- the cost of capital.

2.4.1. Capital expenditure of the earlier access arrangement period

Revised total capital expenditure for the earlier access arrangement period by driver and asset class is set out in Table 2.4 and Table 2.5 below.

Note that 'routine' capital expenditure not delivered through the special projects structure, as well as non-system capital expenditure, is unchanged from the original forecast, except to correct for an error in the application of the labour escalator discussed in section 2.2.1 above.

2.4.2. Depreciation over the earlier access arrangement period

Depreciation over the earlier access arrangement period is based on forecast capital expenditure and therefore will not change from the original proposal. The disaggregation of the ACCC's 2002 Final Decision forecast depreciation is reproduced at Table 2.6 below.

2.4.3. Indexation of the capital base

NT Gas has revised its indexation methodology for the roll forward of the capital base to use CPI figures calculated on a consistent basis as those used in the tariff variation methodology applying over the same period. This is consistent with the AER's approach for the Allgas network.³ The resulting outturn CPI using March on March figures is set out in Table 2.7 below.

This indexation component has been applied in the asset base roll forward model, as shown in Table 2.8 below.

³ AER 2011, *APT Allgas Access Arrangement proposal for the Qld gas network 1 July 2011 – 30 June 2016: Draft Decision*, February, pp 18-19



2.4.4. Projected capital base for the access arrangement period

The revised capital base roll forward for the earlier access arrangement period is provided at Table 2.9 below.

2.4.5. Tax Asset base

The revised tax asset base (TAB) rollforward is shown in Table 2.10 below.



Table 2.4 – Capital expenditure by driver over the earlier access arrangement period – revised forecast

\$ '000 (2009/10)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F	Total
Expansion capital	0	0	0	0	0	0	0	0	361	1,096	1,457
Replacement capital	124	250	3,198	362	124	218	163	442	218	4,355	9,453
Non system capital	144	209	268	82	429	129	572	159	91	82	2,165
Total	268	459	3,466	444	553	347	734	601	670	5,533	13,075

Table 2.5 – Capital expenditure by asset class over the earlier access arrangement period

\$ '000 (2009/10)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F	Total
Pipeline	21	31	0	0	0	146	0	254	361	2,921	3,734
Compression	0	0	0	0	0	0	0	0	0	0	0
Meter Stations	0	160	494	119	0	0	0	4	113	2,205	3,095
SCADA & Communications	2	2	2,851	87	259	58	4	102	13	0	3,376
Operation & Management facilities	245	267	121	238	294	143	731	240	183	407	2,869
Building	0	0	0	0	0	0	0	0	0	0	0
Total	268	459	3,466	444	553	347	734	601	670	5,533	13,075



Table 2.6 - Disaggregation of ACCC 2002 Final Decision forecast depreciation

\$m (nominal)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F
Regulatory Depreciation per ACCC ⁴	14.12	15.53	17.09	18.80	20.75	14.44	12.49	13.09	13.71	14.35
Indexation	5.00	4.70	4.43	4.09	3.69	3.25	3.01	2.75	2.48	2.19
Straight line depreciation	19.12	20.23	21.52	22.89	24.44	17.70	15.50	15.84	16.19	16.55

Table 2.7 – Outturn March to March CPI

	Unit	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F
Actual CPI	%	2.94	3.44	1.98	2.36	2.98	2.44	4.24	2.47	2.89	2.50

Table 2.8 – Indexation of the Capital Base 2002-2011

\$ '000 (nominal)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F
Indexation	6,715	7,442	4,041	4,470	5,114	3,717	5,895	3,208	3,410	2,649

⁴ ACCC 2002, *Final Decision*, Table 3.2



Table 2.9 – Opening capital base for the access arrangement period

\$m (nominal)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F
Opening capital base	228.5	216.3	203.9	189.5	171.4	152.6	139.0	130.1	118.1	106.0
Conforming Capital Expenditure	0.2	0.4	3.0	0.4	0.5	0.3	0.7	0.6	0.7	5.9
Disposals	-	(0.0)	-	(0.0)	(0.0)	(0.0)	0.0	(0.0)	(0.0)	-
Depreciation	(19.1)	(20.2)	(21.5)	(22.9)	(24.4)	(17.7)	(15.5)	(15.8)	(16.2)	(16.5)
Indexation	6.7	7.4	4.0	4.5	5.1	3.7	5.9	3.2	3.4	2.6
Redundant Assets	-	-	-	-	-	-	-	-	-	-
Closing capital base	216.3	203.9	189.5	171.4	152.6	139.0	130.1	118.1	106.0	98.0

Table 2.10 – Tax Asset Base as at 30 June 2011

\$ '000 (nominal)	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11F
Opening TAB	22,263	18,004	14,751	14,542	12,186	10,394	8,791	7,841	6,959	6,353
Additions	215	377	2,916	383	496	318	702	583	670	5,671
Disposals	-	2	-	4	2	2	0	11	8	-
Tax Depreciation	4,473	3,629	3,124	2,735	2,286	1,918	1,652	1,454	1,267	1,383
Closing TAB	18,004	14,751	14,542	12,186	10,394	8,791	7,841	6,959	6,353	10,642



2.4.6. Forecast capital expenditure

Revised total capital expenditure for the access arrangement period by driver and asset class is set out in Table 2.11 and Table 2.12 below.

Table 2.11 – Forecast capital expenditure by driver over the access arrangement period – revised forecast

\$ '000 (2009/10)	2011/12	2012/13	2013/14	2014/15	2015/16	Total
Expansion	0	0	0	0	0	0
Replacement	19,277	12,281	3,845	1,877	1,869	39,149
Non-system	105	105	405	105	305	1,025
Total	19,382	12,386	4,250	1,982	2,174	40,174

Table 2.12 – Forecast capital expenditure by asset class – revised forecast

\$ '000 (2009/10)	2011/12	2012/13	2013/14	2014/15	2015/16	Total
Pipeline	15,862	11,517	3,634	1,621	1,686	34,321
Compression	0	0	0	0	0	0
Meter Stations	3,266	428	50	110	14	3,868
SCADA & Communications	135	315	442	133	347	1,372
Operation & Management facilities	118	125	123	116	126	608
Building	1	1	1	1	1	5
Total	19,382	12,386	4,250	1,982	2,174	40,174



2.4.7. Depreciation over the access arrangement period

Revised forecast straight line depreciation over the access arrangement period is shown in Table 2.13 below.

Table 2.13 – Forecast straight line depreciation over the access arrangement period – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Transmission Pipeline					
Compressor Stations					
Regulation and Metering Stations					
SCADA					
O&M Facilities					
Buildings					
Redacted - confidential					
Total	7,098	6,607	6,986	7,265	3,776

2.4.8. Indexation of the capital base

The revised forecast amount of indexation applied to the capital base is shown in Table 2.14 below.

Table 2.14 – Forecast indexation of the capital base – revised forecast

\$'000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Total	2,450	2,865	3,119	3,144	3,100



2.4.9. Projected capital base for the access arrangement period

The revised projected capital base for the access arrangement period is shown in Table 2.15 below.

Table 2.15 – Projected capital base for the access arrangement period – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Opening capital base	98,003	114,586	124,751	125,775	123,992
<i>plus</i> forecast capex	21,231	13,907	4,892	2,338	2,629
<i>less</i> forecast regulatory depreciation	4,648	3,742	3,867	4,120	676
<i>less</i> forecast disposals	-	-	-	-	-
<i>less</i> forecast redundant assets	-	-	-	-	-
Closing capital base	114,586	124,751	125,775	123,992	125,945

2.4.10. Return on capital

The required return on the capital base is provided in Table 2.16 below.

Table 2.16 – Return on capital – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Return on capital	11,193	13,087	14,248	14,365	14,161

2.4.11. Regulatory depreciation

Forecast depreciation of over the access arrangement period is shown in Table 2.17 below.

Table 2.17 – Forecast depreciation over the access arrangement period – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Straight line depreciation	7,098	6,607	6,986	7,265	3,776
Indexation	2,450	2,865	3,119	3,144	3,100
Regulatory depreciation	4,648	3,742	3,867	4,120	676



2.4.12. Corporate income tax

Forecast tax allowance used the revised capital forecast is shown in Table 2.18 below.

Table 2.18 – Corporate income tax allowance – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Tax allowance	2668	2454	2696	2717	1276

2.4.13. Total and smoothed revenue requirement

The total revenue requirement for the access arrangement period is shown in Table 2.19.

Table 2.19 – Total revenue requirement – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16
Return on capital	11,193	13,087	14,248	14,365	14,161
Regulatory Depreciation	4,648	3,742	3,867	4,120	676
Operating expenditure	13,817	15,995	14,812	15,290	18,820
Tax Allowance	2668	2454	2696	2717	1276
Revenue requirement	31,793	34,787	35,084	35,948	34,678

The present value of this revenue requirement stream, discounted at the WACC of 11.42%, is \$125.437 million.

The smoothed revenue requirement used to derive the tariffs is provided in Table 2.20.

Table 2.20 – Smoothed revenue requirement – revised forecast

\$ '000 (nominal)	2011/12	2012/13	2013/14	2014/15	2015/16F
Smoothed Revenue requirement	32,801	33,621	34,461	35,323	36,206

The present value of this smoothed revenue requirement, discounted at the WACC of 11.42 per cent, is \$125.437 million.

The revenue path is then translated, reflecting changes in demand requirements, into a price path in a CPI-X format. This derives the unit price to apply in each year of the access arrangement period based on a defined starting point. The 2011/12 tariff that forms the starting point for the access arrangement period is \$0.77/GJ.



NT Gas proposes the same X factors as were included in the original forecast, shown in Table 2.21.

Table 2.21 – X Factors

	2011/12	2012/13	2013/14	2014/15	2015/16
X Factors	N/A	0	0	0	0

2.5. Implications for review timetable

NT Gas recognises that the AER is subject to an unusually compressed timetable in which to conduct its review of NT Gas' access arrangement revision timetable. NT Gas would anticipate that consideration of these updated numbers would mean a revision to the published timetable for the review, and potentially the release of a final decision after 1 July 2011, the expected start of the access arrangement period.

NT Gas advises that it does not consider that a short delay to the finalisation of this access arrangement will adversely impact itself or users of the pipeline.

The access arrangement currently in place contains a provision for tariff variation should the revisions commencement date extend past 1 July 2011.⁵ NT Gas anticipates that this provision would apply should the AER's decision extend past 1 July 2011.

⁵ NT Gas 2003, *Access Arrangement for Amadeus Basin to Darwin Pipeline*, February, clause 3.1.2



Attachment A - Revised integrity program - project proposals - confidential

Provided as separate documents