



**GDB Information Disclosure Requirements
Information Templates
for
Schedules 11–12c**

Company Name	<input type="text" value="Vector"/>
Disclosure Date	<input type="text" value="30 September 2013"/>
AMP Planning Period Start Date (first day)	<input type="text" value="1 July 2013"/>

Templates for Schedules 11a–12c (Asset Management Plan)
Template Version 2.1. Prepared 14 May 2013

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Schedule Description

Asset Management Plan Schedule Templates

- 11a [Report on Forecast Capital Expenditure](#)
- 11b [Report on Forecast Operational Expenditure](#)
- 12a [Report on Asset Condition](#)
- 12b [Report on Forecast Utilisation](#)
- 12c [Report on Forecast Demand](#)

Disclosure Template Guidelines for Information Entry

These templates have been prepared for use by GDBs when making disclosures under subclauses 2.6.1(4), 2.6.1(5) and 2.6.5(4) of the Gas Distribution Information Disclosure Determination 2012. Disclosures made under subclauses 2.6.1(4) and 2.6.1(5) must be made before the start of each disclosure year. Disclosures made under subclauses 2.6.5(4) must be made within 6 months after the start of the disclosure year. A copy must be provided to the Commission within 5 working days of being disclosed to the public. The information disclosed under 2.6.5(4) should be identical to that disclosed under 2.6.1(4) and 2.6.1(5).

Company Name and Dates

To prepare the templates for disclosure, the supplier's company name should be entered in cell C8, the date of the last day of the current (disclosure) year should be entered in cell C12, and the date on which the information is disclosed should be entered in cell C10 of the CoverSheet worksheet.

The cell C12 entry (planning period start date) is used to calculate disclosure years in the column headings that show above some of the tables. It is also used to calculate the AMP planning period dates in the template title blocks (the title blocks are the light green shaded areas at the top of each template).

The cell C8 entry (company name) is used in the template title blocks.

Dates should be entered in day/month/year order (Example -"1 April 2013").

Data Entry Cells and Calculated Cells

Data entered into this workbook may be entered only into the data entry cells. Data entry cells are the bordered, unshaded areas (white cells) in each template. Under no circumstances should data be entered into the workbook outside a data entry cell.

In some cases, where the information for disclosure is able to be ascertained from disclosures elsewhere in the workbook, such information is disclosed in a calculated cell. Under no circumstances should the formulas in a calculated cell be overwritten.

Validation Settings on Data Entry Cells

To maintain a consistency of format and to help guard against errors in data entry, some data entry cells test keyboard entries for validity and accept only a limited range of values. For example, entries may be limited to a list of category names, to values between 0% and 100%, or either a numeric entry or the text entry "N/A". Where this occurs, a validation message will appear when data is being entered. These checks are applied to keyboard entries only and not, for example, to entries made using Excel's copy and paste facility.

Conditional Formatting Settings on Data Entry Cells

Schedule 12a columns G to K contain conditional formatting. The cells will change colour if the row totals do not add to 100%.

Inserting Additional Rows

The templates for schedules 11a, 12b and 12c may require additional rows to be inserted in tables marked 'include additional rows if needed' or similar.

Additional rows in schedules 11a and 12c must not be inserted directly above the first row or below the last row of a table. This is to ensure that entries made in the new row are included in the totals.

Schedule References

The references labelled 'sch ref' in the leftmost column of each template are consistent with the row references in the Gas Distribution ID Determination 2012 (as issued on 1 October 2012). They provide a common reference between the rows in the determination and the template. Due to page formatting, the row reference sequences contained in the determination schedules are not necessarily contiguous.

Description of Calculation References

Calculation cell formulas contain links to other cells within the same template or elsewhere in the workbook. Key cell references are described in a column to the right of each template. These descriptions are provided to assist data entry. Cell references refer to the row of the template and not the schedule reference.

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions). GDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

sch ref

	Current Year CY 30 Jun 13	CY+1 30 Jun 14	CY+2 30 Jun 15	CY+3 30 Jun 16	CY+4 30 Jun 17	CY+5 30 Jun 18	CY+6 30 Jun 19	CY+7 30 Jun 20	CY+8 30 Jun 21	CY+9 30 Jun 22	CY+10 30 Jun 23
11a(i): Expenditure on Assets Forecast	\$000 (nominal dollars)										
Consumer connection	10,322	10,446	11,021	11,097	11,427	11,712	12,005	12,270	12,577	12,834	13,155
System growth	649	3,689	5,391	3,572	3,421	3,942	6,505	10,027	8,697	8,084	4,231
Asset replacement and renewal	9,933	12,858	4,326	1,677	1,685	1,325	1,243	1,274	1,276	1,308	1,341
Asset relocations	1,215	4,006	4,112	3,184	2,585	2,747	4,022	4,123	3,928	4,026	4,127
Reliability, safety and environment:											
Quality of supply	425	613	775	444	139	134	289	141	96	377	101
Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
Other reliability, safety and environment	20	-	-	-	-	-	-	-	-	-	-
Total reliability, safety and environment	445	613	775	444	139	134	289	141	96	377	101
Expenditure on network assets	22,564	31,612	25,625	19,974	19,257	19,860	24,064	27,835	26,574	26,629	22,955
Non-network assets	1,693	1,708	1,960	1,872	1,786	1,459	1,546	1,599	1,624	1,544	1,583
Expenditure on assets	24,257	33,320	27,585	21,846	21,043	21,319	25,610	29,434	28,198	28,173	24,538
plus Cost of financing	48	192	184	137	124	129	179	220	203	200	158
less Value of capital contributions	3,253	4,501	4,662	4,065	3,721	3,877	4,778	4,892	4,819	4,928	5,051
plus Value of vested assets	-	-	-	-	-	-	-	-	-	-	-
Capital expenditure forecast	21,052	29,011	23,107	17,918	17,446	17,571	21,011	24,762	23,582	23,445	19,645
Value of commissioned assets	23,423	29,011	23,107	17,918	17,446	17,571	21,011	24,762	23,582	23,445	19,645

	Current Year CY 30 Jun 13	CY+1 30 Jun 14	CY+2 30 Jun 15	CY+3 30 Jun 16	CY+4 30 Jun 17	CY+5 30 Jun 18	CY+6 30 Jun 19	CY+7 30 Jun 20	CY+8 30 Jun 21	CY+9 30 Jun 22	CY+10 30 Jun 23
11a(ii): Expenditure on Assets Forecast	\$000 (in constant prices)										
Consumer connection	10,322	10,105	10,382	10,105	10,095	10,095	10,095	10,067	10,067	10,022	10,022
System growth	649	3,569	5,078	3,253	3,023	3,398	5,470	8,226	6,961	6,312	3,223
Asset replacement and renewal	9,933	12,438	4,075	1,527	1,488	1,140	1,046	1,046	1,021	1,021	1,021
Asset relocations	1,215	3,876	3,873	2,899	2,284	2,368	3,382	3,382	3,144	3,144	3,144
Reliability, safety and environment:											
Quality of supply	425	593	730	404	122	115	243	115	77	295	77
Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
Other reliability, safety and environment	20	-	-	-	-	-	-	-	-	-	-
Total reliability, safety and environment	445	593	730	404	122	115	243	115	77	295	77
Expenditure on network assets	22,564	30,581	24,138	18,188	17,012	17,116	20,236	22,836	21,270	20,794	17,487
Non-network assets	1,693	1,652	1,846	1,705	1,578	1,258	1,300	1,312	1,300	1,206	1,206
Expenditure on assets	24,257	32,233	25,984	19,893	18,590	18,374	21,536	24,148	22,570	22,000	18,693

Subcomponents of expenditure on assets (where known)											
Research and development	-	-	-	-	-	-	-	-	-	-	-

	Current Year CY 30 Jun 13	CY+1 30 Jun 14	CY+2 30 Jun 15	CY+3 30 Jun 16	CY+4 30 Jun 17	CY+5 30 Jun 18	CY+6 30 Jun 19	CY+7 30 Jun 20	CY+8 30 Jun 21	CY+9 30 Jun 22	CY+10 30 Jun 23
Difference between nominal and constant price forecasts	\$000										
Consumer connection	-	341	639	992	1,332	1,617	1,910	2,203	2,510	2,812	3,133
System growth	-	120	313	319	398	544	1,035	1,801	1,736	1,772	1,008
Asset replacement and renewal	-	420	251	150	197	185	197	228	255	287	320
Asset relocations	-	130	239	285	301	379	640	741	784	882	983
Reliability, safety and environment:											
Quality of supply	-	20	45	40	17	19	46	26	19	82	24
Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
Other reliability, safety and environment	-	-	-	-	-	-	-	-	-	-	-
Total reliability, safety and environment	-	20	45	40	17	19	46	26	19	82	24
Expenditure on network assets	1,031	1,487	1,786	2,245	2,744	3,828	4,999	5,304	5,835	5,468	5,468
Non-network assets	-	56	114	167	208	201	246	287	324	338	377
Expenditure on assets	-	1,087	1,601	1,953	2,453	2,945	4,074	5,286	5,628	6,173	5,845

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions). GDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

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11a(ii): Consumer Connection

for year ended

Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18

Consumer types defined by GDB*

Mains Extensions/Subdivisions
Service Connections - Residential
Service Connections - Commercial
Customer Easements

\$000 (in constant prices)

3,994	4,158	4,435	4,158	4,158	4,158
5,288	5,193	5,193	5,193	5,183	5,183
1,037	696	696	696	696	696
3	58	58	58	58	58
-	-	-	-	-	-
10,322	10,105	10,382	10,105	10,095	10,095
1,798	1,766	1,793	1,766	1,764	1,764
8,524	8,339	8,589	8,339	8,331	8,331

* include additional rows if needed

Consumer connection expenditure

less Capital contributions funding consumer connection

Consumer connection less capital contributions

11a(iii): System Growth

Intermediate pressure

Main pipe	9	1,435	2,467	543	191	1,573
Service pipe	-	-	-	-	-	-
Stations	338	1,067	1,145	1,060	1,129	495
Line valve	-	-	-	-	-	-
Special crossings	-	96	-	-	-	16
Intermediate Pressure total	347	2,598	3,612	1,603	1,320	2,084

Medium pressure

Main pipe	216	856	1,351	1,523	1,444	952
Service pipe	-	-	-	12	-	-
Stations	68	-	-	-	144	247
Line valve	-	-	-	-	-	-
Special crossings	-	-	-	-	-	-
Medium Pressure total	284	856	1,351	1,535	1,588	1,199

Low Pressure

Main pipe	-	-	-	-	-	-
Service pipe	-	-	-	-	-	-
Line valve	-	-	-	-	-	-
Special crossings	-	-	-	-	-	-
Low Pressure total	-	-	-	-	-	-

Other assets

Monitoring and control systems	18	115	115	115	115	115
Cathodic protection systems	-	-	-	-	-	-
Other assets (other than above)	-	-	-	-	-	-
Other total	18	115	115	115	115	115

System growth expenditure

less Capital contributions funding system growth

System growth less capital contributions

649	3,569	5,078	3,253	3,023	3,398
-	-	-	-	-	-
649	3,569	5,078	3,253	3,023	3,398

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions). GDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

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11a(iv): Asset Replacement and Renewal

for year ended	Current Year CY 30 Jun 13	CY+1 30 Jun 14	CY+2 30 Jun 15	CY+3 30 Jun 16	CY+4 30 Jun 17	CY+5 30 Jun 18
\$000 (in constant prices)						
Intermediate pressure						
Main pipe	306	1,060	10	10	10	10
Service pipe	-	-	-	-	-	-
Stations	672	903	607	675	636	385
Line valve	10	-	-	-	-	-
Special crossings	-	96	96	96	96	96
Intermediate Pressure total	988	2,059	713	781	742	491
Medium pressure						
Main pipe	2,975	2,930	752	366	366	366
Service pipe	29	1,040	72	-	-	-
Station	146	48	145	48	48	48
Line valve	264	204	156	96	96	96
Special crossings	43	-	-	-	-	-
Medium Pressure total	3,457	4,222	1,125	510	510	510
Low Pressure						
Main pipe	3,347	2,991	1,062	-	-	-
Service pipe	1,318	2,145	496	-	-	-
Line valve	-	-	-	-	-	-
Special crossings	-	-	-	-	-	-
Low Pressure total	4,665	5,136	1,558	-	-	-
Other assets						
Monitoring and control systems	30	24	24	24	24	24
Cathodic protection systems	788	708	636	193	193	96
Other assets (other than above)	5	289	19	19	19	19
Other total	823	1,021	679	236	236	139
Asset replacement and renewal expenditure	9,933	12,438	4,075	1,527	1,488	1,140
less Capital contributions funding asset replacement and renewal	-	-	-	-	-	-
Asset replacement and renewal less capital contributions	9,933	12,438	4,075	1,527	1,488	1,140

11a(v): Asset Relocations

Project or programme*

-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

* include additional rows if needed

All other asset relocations projects or programmes	1,215	3,876	3,873	2,899	2,284	2,368
Asset relocations expenditure	1,215	3,876	3,873	2,899	2,284	2,368
less Capital contributions funding asset relocations	1,455	2,588	2,598	1,935	1,523	1,578
Asset relocations less capital contributions	(240)	1,288	1,275	964	761	790

Company Name **Vector**
 AMP Planning Period **1 July 2013 – 30 June 2023**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions).
 GDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes).
 This information is not part of audited disclosure information.

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11a(vi): Quality of Supply

for year ended **Current Year CY** **CY+1** **CY+2** **CY+3** **CY+4** **CY+5**
30 Jun 13 **30 Jun 14** **30 Jun 15** **30 Jun 16** **30 Jun 17** **30 Jun 18**

Project or programme*	\$000 (in constant prices)					
<i>* include additional rows if needed</i>						
All other quality of supply projects or programmes	425	593	730	404	122	115
Quality of supply expenditure	425	593	730	404	122	115
less Capital contributions funding quality of supply						
Quality of supply less capital contributions	425	593	730	404	122	115

11a(vii): Legislative and Regulatory

Project or programme						
<i>* include additional rows if needed</i>						
All other legislative and regulatory projects or programmes						
Legislative and regulatory expenditure						
less Capital contributions funding legislative and regulatory						
Legislative and regulatory less capital contributions						

11a(viii): Other Reliability, Safety and Environment

Project or programme*						
<i>* include additional rows if needed</i>						
All other reliability, safety and environment projects or programmes	20					
Other reliability, safety and environment expenditure	20					
less Capital contributions funding other reliability, safety and environment						
Other Reliability, safety and environment less capital contributions	20					

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions). GDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

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211	11a(ix): Non-Network Assets						
212	Routine expenditure						
213	Project or programme*						
214							
215							
216							
217							
218							
219	* include additional rows if needed						
220	All other routine expenditure projects or programmes						
221	Routine expenditure						
222	Atypical expenditure						
223	Project or programme*						
224							
225							
226							
227							
228							
229	* include additional rows if needed						
230	All other atypical expenditure projects or programmes	1,693	1,652	1,846	1,705	1,578	1,258
231	Atypical expenditure	1,693	1,652	1,846	1,705	1,578	1,258
232							
233	Non-network assets expenditure	1,693	1,652	1,846	1,705	1,578	1,258

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXPENDITURE

This schedule requires a breakdown of forecast operational expenditure for the disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. GDBs must provide explanatory comment on the difference between constant price and nominal dollar operational expenditure forecasts in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

sch ref

	Current year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
for year ended	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	30 Jun 23
Operational Expenditure Forecast											
	\$000 (in nominal dollars)										
Service interruptions, incidents and emergencies	4,217	4,149	4,261	4,408	4,543	4,657	4,773	4,892	5,015	5,140	5,269
Routine and corrective maintenance and inspection	3,727	4,704	4,843	5,057	5,144	5,359	5,497	5,668	5,845	6,027	6,216
Asset replacement and renewal	-	-	-	-	-	-	-	-	-	-	-
Network opex	7,944	8,853	9,104	9,465	9,687	10,016	10,270	10,560	10,860	11,167	11,485
System operations and network support	3,422	4,146	4,582	4,719	4,864	4,985	5,110	5,238	5,369	5,503	5,640
Business support	7,011	8,210	9,080	9,392	9,680	9,922	10,171	10,425	10,685	10,953	11,226
Non-network opex	10,433	12,356	13,662	14,111	14,544	14,907	15,281	15,663	16,054	16,456	16,866
Operational expenditure	18,377	21,209	22,766	23,576	24,231	24,923	25,551	26,223	26,914	27,623	28,351

	Current year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
for year ended	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	30 Jun 23
\$000 (in constant prices)											
Service interruptions, incidents and emergencies	4,217	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014	4,014
Routine and corrective maintenance and inspection	3,727	4,550	4,562	4,605	4,544	4,619	4,622	4,650	4,678	4,707	4,735
Asset replacement and renewal	-	-	-	-	-	-	-	-	-	-	-
Network opex	7,944	8,564	8,576	8,619	8,558	8,633	8,636	8,664	8,692	8,721	8,749
System operations and network support	3,422	4,011	4,316	4,297	4,297	4,297	4,297	4,297	4,297	4,297	4,297
Business support	7,011	7,942	8,553	8,553	8,553	8,553	8,553	8,553	8,553	8,553	8,553
Non-network opex	10,433	11,953	12,869	12,850	12,850	12,850	12,850	12,850	12,850	12,850	12,850
Operational expenditure	18,377	20,517	21,445	21,469	21,408	21,483	21,486	21,514	21,542	21,571	21,599

Subcomponents of operational expenditure (where known)											
Research and development	-	-	-	-	-	-	-	-	-	-	-
Insurance	228	239	254	263	265	265	265	265	265	265	265

	Current year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
for year ended	30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18	30 Jun 19	30 Jun 20	30 Jun 21	30 Jun 22	30 Jun 23
Difference between nominal and real forecasts											
	\$000										
Service interruptions, incidents and emergencies	-	135	247	394	529	643	759	878	1,001	1,126	1,255
Routine and corrective maintenance and inspection	-	154	281	452	600	740	875	1,018	1,167	1,320	1,481
Asset replacement and renewal	-	-	-	-	-	-	-	-	-	-	-
Network opex	-	289	528	846	1,129	1,383	1,634	1,896	2,168	2,446	2,736
System operations and network support	-	135	266	422	567	688	813	941	1,072	1,206	1,343
Business support	-	268	527	839	1,127	1,369	1,618	1,872	2,132	2,400	2,673
Non-network opex	-	403	793	1,261	1,694	2,057	2,431	2,813	3,204	3,606	4,016
Operational expenditure	-	692	1,321	2,107	2,823	3,440	4,065	4,709	5,372	6,052	6,752

Company Name	Vector
AMP Planning Period	1 July 2013 – 30 June 2023

SCHEDULE 12a: REPORT ON ASSET CONDITION

This schedule requires a breakdown of asset condition by asset class as at the start of the forecast year. The data accuracy assessment relates to the percentage values disclosed in the asset condition columns. Also required is a forecast of the percentage of units to be replaced in the next 5 years. All information should be consistent with the information provided in the AMP and the expenditure on assets forecast in Schedule 11a.

sch ref

					Asset condition at start of planning period (percentage of units by grade)					Data accuracy	% of asset forecast to be replaced in next 5 years
Operating Pressure	Asset category	Asset class	Units	Grade 1	Grade 2	Grade 3	Grade 4	Grade unknown	(1-4)		
	Intermediate Pressure	Main pipe	IP PE main pipe	km	-	-	-	-	-	4	-
	Intermediate Pressure	Main pipe	IP steel main pipe	km	-	-	100.00%	-	-	3	-
	Intermediate Pressure	Main pipe	IP other main pipe	km	-	-	-	-	-	4	-
	Intermediate Pressure	Service pipe	IP PE service pipe	km	-	-	-	-	-	4	-
	Intermediate Pressure	Service pipe	IP steel service pipe	km	-	-	81.31%	18.69%	-	3	-
	Intermediate Pressure	Service pipe	IP other service pipe	km	-	-	-	-	-	4	-
	Intermediate Pressure	Stations	Intermediate pressure DRS	No.	1.04%	14.51%	50.26%	34.20%	-	4	14.36%
	Intermediate Pressure	Line valve	IP line valves	No.	0.11%	2.66%	80.91%	0.44%	15.87%	3	0.10%
	Intermediate Pressure	Special crossings	IP crossings	No.	-	13.64%	68.18%	15.91%	2.27%	3	0.40%
	Medium Pressure	Main pipe	MP PE main pipe	km	-	-	-	100.00%	-	3	0.05%
	Medium Pressure	Main pipe	MP steel main pipe	km	-	4.06%	36.67%	59.27%	-	3	4.06%
	Medium Pressure	Main pipe	MP other main pipe	km	-	100.00%	-	-	-	3	-
	Medium Pressure	Service pipe	MP PE service pipe	km	-	-	-	100.00%	-	3	0.22%
	Medium Pressure	Service pipe	MP steel service pipe	km	-	36.65%	63.35%	-	-	3	4.19%
	Medium Pressure	Service pipe	MP other service pipe	km	-	-	100.00%	-	-	3	-
	Medium Pressure	Stations	Medium pressure DRS	No.	-	5.36%	58.93%	35.71%	-	4	1.96%
	Medium Pressure	Line valve	MP line valves	No.	0.05%	0.94%	78.23%	0.58%	20.20%	3	0.10%
	Medium Pressure	Special crossings	MP special crossings	No.	-	6.48%	75.00%	13.89%	4.63%	3	0.90%
	Low Pressure	Main pipe	LP PE main pipe	km	-	-	-	100.00%	-	3	21.20%
	Low Pressure	Main pipe	LP steel main pipe	km	-	100.00%	-	-	-	3	100.00%
	Low Pressure	Main pipe	LP other main pipe	km	-	100.00%	-	-	-	3	100.00%
	Low Pressure	Service pipe	LP PE service pipe	km	-	-	43.59%	56.41%	-	3	53.40%
	Low Pressure	Service pipe	LP steel service pipe	km	-	100.00%	-	-	-	3	100.00%
	Low Pressure	Service pipe	LP other service pipe	km	-	100.00%	-	-	-	3	100.00%
	Low Pressure	Line valve	LP line valves	No.	-	-	45.83%	-	54.17%	3	-
	Low Pressure	Special crossings	LP special crossings	No.	-	-	100.00%	-	-	3	-
	All	Monitoring & control systems	Remote terminal units	No.	-	15.15%	77.27%	7.58%	-	3	-
	All	Cathodic protection systems	Cathodic protection	No.	3.70%	20.37%	75.93%	-	-	4	10.85%

Company Name **Vector**
 AMP Planning Period **1 July 2013 – 30 June 2023**

SCHEDULE 12b: REPORT ON FORECAST UTILISATION

This Schedule requires a breakdown of current and forecast utilisation (for heavily utilised pipelines) consistent with the information provided in the AMP and the demand forecast in schedule S12c.

sch ref

Forecast Utilisation of Heavily Utilised Pipelines

Utilisation

Region	Network	Pressure system	Nominal operating pressure (NOP) (kPa)	Minimum operating pressure (MinOP) (kPa)	Total capacity at MinOP (scmh)	Remaining capacity at MinOP (scmh)	Unit	Current Year CY					Comment	
								y/e 30 Jun 13	y/e 30 Jun 14	y/e 30 Jun 15	y/e 30 Jun 16	y/e 30 Jun 17		y/e 30 Jun 18
Auckland	Auckland Central	AU Auckland IP20	1,900	950	74,647	820	scmh	73,827	74,466	75,105	75,744	76,383	77,022	Remaining capacity at MinOP is available in East Tamaki area. Refer Note 4 for other explanatory information.
							kPa	1,186	1,173	1,160	1,147	1,133	1,120	
Auckland	Auckland Central	AU North Shore MP4	400	200	14,920	104	scmh	14,816	14,964	15,114	15,265	15,418	15,572	Remaining capacity at MinOP is available in Devonport area. Refer Note 5 for other explanatory information.
							kPa	236	233	229	225	220	216	
Auckland	Auckland Central	AU Central Auckland MP4	400	200	45,825	98	scmh	45,727	46,184	46,646	47,113	47,584	48,060	Remaining capacity at MinOP is available in South Tiritangi area. System reinforcement is planned in 2015 and 2016. Refer to Notes 5, 8 and 10 for other explanatory information.
							kPa	265	262	259	256	253	250	
Auckland	Auckland Central	AU East Auckland MP4	400	200	13,402	143	scmh	13,259	18,993	19,183	19,375	19,569	19,764	Remaining capacity at MinOP is available in Pakuranga East area. System reinforcement is planned to implement in 2014. Refer Notes 5, 9 and 10 for other explanatory information.
							kPa	237	265	262	259	256	252	
Auckland	Auckland Central	AU Auckland Airport MP4	400	200	2,143		scmh	2,143	2,164	2,186	2,208	2,230	2,252	Remaining capacity at MinOP is nil. System reinforcement is planned in 2014 and 2018. Refer Notes 5 and 10 for other explanatory information.
							kPa	129	211	206	201	196	207	
Auckland	Harrisville	HR Harrisville MP7	700	350	4,618	383	scmh	4,235	4,475	4,714	4,953	5,192	5,432	Remaining capacity at MinOP is available at Bombay east area. System reinforcement options will be investigated in 2014 (possible upgrade of gate station by Vector Transmission). Refer Notes 4 for other explanatory information.
							kPa	425	410	394	376	357	337	
Waikato	Hamilton	HA Hamilton West MP4	400	200	3,080	28	scmh	3,052	3,110	3,169	3,229	3,291	3,353	Remaining capacity at MinOP is available in Nawton east area. Refer Note 6 for other explanatory information.
							kPa	236	232	228	224	219	215	
Waikato	Hamilton	HA Puketapu MP4	400	200	2,786	76	scmh	2,710	2,761	2,814	2,867	2,922	2,977	Remaining capacity at MinOP is available in Te Rapa east area. System reinforcement is planned in 2019. Refer Notes 6 and 10 for other explanatory information.
							kPa	223	218	214	209	203	198	
Waikato	Waitoa	WT Waitoa MP4	400	200	1,702		scmh	1,702	1,702	1,746	1,792	1,838	1,886	Remaining capacity at MinOP is available nil. System reinforcement is planned in 2015. Refer Notes 7 and 10 for other explanatory information.
							kPa	152	152	250	242	234	226	
Gisborne	Gisborne	GS Gisborne IP20	1,900	950	3,597	315	scmh	3,282	3,307	3,333	3,358	3,384	3,409	Remaining capacity at MinOP is available at Matawhero south area. Refer Note 4 for other explanatory information.
							kPa	1,179	1,170	1,161	1,152	1,142	1,133	
Kapiti	Paraparaumu	PR Paraparaumu IP20	1,900	950	1,669		scmh	1,669	1,717	1,766	1,814	1,862	1,911	Remaining capacity at MinOP is nil. System reinforcement is planned in 2015. Refer Notes 4 and 10 for other explanatory information.
							kPa	747	712	1,357	1,336	1,314	1,291	

* Current year utilisation figures may be estimates. Year 1–5 figures show the utilisation forecast to occur given the expected system configuration for each year, including the effect of any new investment in the pressure system.

Disclaimer for supply enquiries

The information in this table contains modelled estimates of utilisation and capacity. Any interested party seeking to invest in supply from Vector's distribution networks should contact their retailer and confirm availability of capacity.

Notes and assumptions

- A heavily utilised pressure system is identified based on its estimated flow rate at system peak in 2013 greater than or equal to 500 scmh and its utilisation greater than or equal to 40%. The utilisation of a pressure system is obtained from the formula: $[1 - (\text{system minimum pressure/nominal operating pressure})] * 100\%$.
- Remaining capacity at MinOP in the current year is estimated based on the level at which the minimum operating pressure is reached. To provide an appropriate operational margin to account for variable consumption patterns, forecast errors and network operational problems, Vector's quality of supply standard sets the MinOP at 50% of the rated pressure (or 82% of the pipeline capacity) for a pressure system (based on standard operating pressures). By setting the MinOP of a pressure system and examining the modelled flows at various extremity points in the model, a minimum flow value among one of these points is selected to represent the remaining capacity at MinOP of the pressure system being studied.
- A forecast model of a pressure system is obtained by applying either its forecast flow rate or an annual growth rate in each forecast year; and scaling its loads evenly to give the system total flow. The result of system minimum pressure is simulated on this basis.
- Forecast system flow is populated from the respective network system as tabulated in Table 5.1 of Section 5 - Network Development Planning of Gas Distribution Asset Management Plan 2013 - 2023.
- Forecast system flow is based on an annual growth rate of 1% for Central Auckland network system as tabulated in Table 5.1 of Section 5 - Network Development Planning of Gas Distribution Asset Management Plan 2013 - 2023.
- Forecast system flow is based on an annual growth rate of 1.9% for Hamilton network system as tabulated in Table 5.1 of Section 5 - Network Development Planning of Gas Distribution Asset Management Plan 2013 - 2023.
- Forecast system flow is based on an annual growth rate of 2.6% for Waitoa network system as tabulated in Table 5.1 of Section 5 - Network Development Planning of Gas Distribution Asset Management Plan 2013 - 2023.
- AU Central Auckland MP4, AU Onehunga MP4, AU Main Highway MP4, AU Station Road MP4, AU Station Road (19) MP4 pressure system will merge together after completion of LP pipeline programme in FY2014.
- AU East Auckland MP4, Mangere MP4, AU Fairburn MP4 and AU Westfield MP4 pressure system will merge together after completion of LP pipeline replacement in FY2014.
- Details of performance, capacity and system reinforcement are described in Section 5 - Network Development Planning of Gas Distribution Asset Management Plan 2013 - 2023.
- The table would provide a snapshot in time of capacity at the date of its preparation, and the figures will change over time. It can therefore be used for consumer guidance only. In addition, the capacity limits included are for the most constrained part of each particular pressure system, and more capacity may be available at other points on the network. Consumers considering taking gas from a network and need an accurate assessment of capacity available at the required off-take point, will have to contact Vector. Vector will prepare a dedicated model that will provide an accurate assessment of available gas capacity at the date of the request.

Company Name

Vector

AMP Planning Period

1 July 2013 – 30 June 2023

SCHEDULE 12c: REPORT ON FORECAST DEMAND

This schedule requires a forecast of new connections (by consumer type), peak demand and energy volumes for the disclosure year and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumptions used in developing the expenditure forecasts in Schedule 11a and Schedule 11b and the capacity and utilisation forecasts in Schedule 12b.

sch ref

12c(i) Consumer Connections							
Number of ICPs connected in year by consumer type		<i>Current year CY</i>	<i>CY+1</i>	<i>CY+2</i>	<i>CY+3</i>	<i>CY+4</i>	<i>CY+5</i>
		30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18
<i>Consumer types defined by GDB</i>							
Residential		3,136	3,090	3,090	3,090	3,086	3,086
Commercial		330	309	309	309	308	308
Total		3,466	3,399	3,399	3,399	3,394	3,394
12c(ii): Gas Delivered		<i>Current year CY</i>	<i>CY+1</i>	<i>CY+2</i>	<i>CY+3</i>	<i>CY+4</i>	<i>CY+5</i>
		30 Jun 13	30 Jun 14	30 Jun 15	30 Jun 16	30 Jun 17	30 Jun 18
Number of ICPs at year end		156,908	159,527	162,146	164,765	167,379	169,993
Maximum daily load (GJ/day)		88,261	93,708	94,506	95,286	96,049	96,794
Maximum monthly load (GJ/month)		2,264,618	2,323,468	2,343,437	2,362,968	2,382,064	2,400,735
Number of directly billed ICPs (at year end)		1	1	1	1	1	1
Total gas conveyed (GJ/annum)		21,810,158	22,163,676	22,358,013	22,548,245	22,734,395	22,916,553
Average daily delivery (GJ/day)		59,591	60,722	61,255	61,776	62,116	62,785
Maximum monthly amount of gas entering network (GJ/month)		2,264,618	2,323,468	2,343,437	2,362,968	2,382,064	2,400,735
Load factor		80.26%	79.49%	79.51%	79.52%	79.53%	79.55%