
**REVISED SCHEDULES FOR REVISED ACCESS ARRANGEMENT
FOR MOOMBA TO ADELAIDE PIPELINE SYSTEM**

AMENDED SINCE LODGMENT

VERSION 22 JANUARY 2002

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PIPELINE SYSTEM

(clause 2)

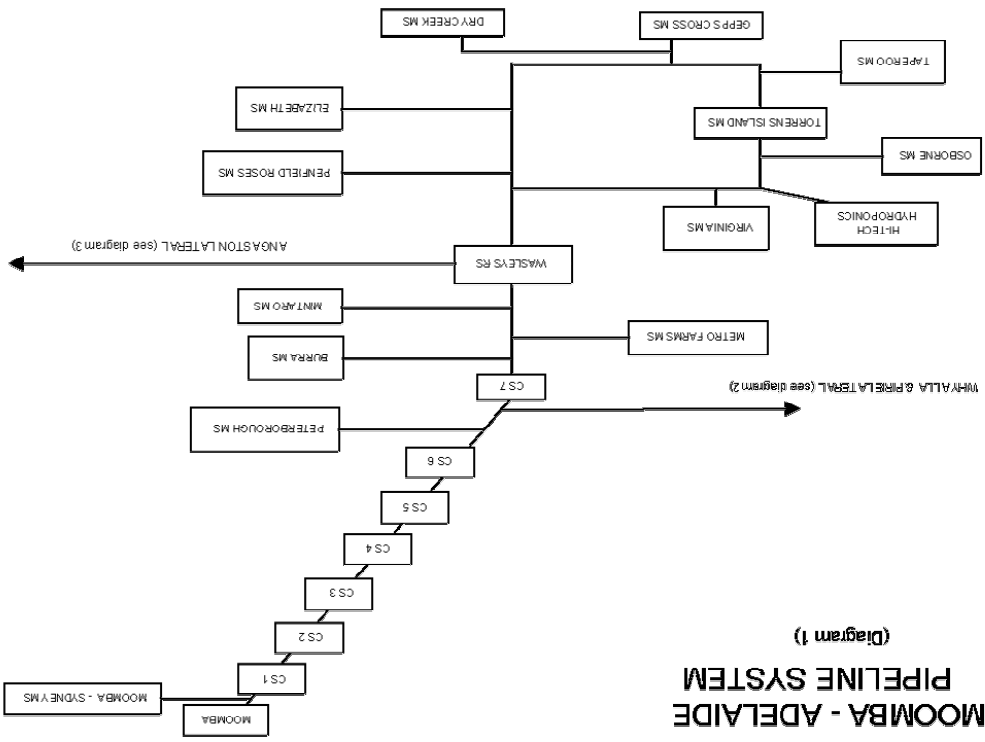
(Refer Diagrams 1, 2 and 3 following)

The pipeline is mainly of 559 mm NB, API 5LX-52 SAW pipe and is largely coated with Plicoflex black PVC tape over butyl mastic primer. From Moomba to Wasleys, the MAOP is 7322 kPa and from Wasleys to Adelaide the MAOP is 6100 kPa. From Bungama to Whyalla on the Whyalla lateral, the MAOP is 10200 kPa. Pipeline wall thickness complies with AS2885-1997 using the appropriate third-party factor for the relevant location class. A brief summary of technicals details of the Pipeline System is as follows:

Applicable Code	AS2885-1997
MAOP (maximum allowable operating pressure)	7,322 kPa except in certain locations.
Steel Grade	API 5L-X52 except where noted below. API 5L-X60 on Wasley to Adelaide loop-line and Osborne lateral. ASTM A53 Grade B on Peterborough lateral, Nuriootpa lateral, Dry Creek lateral. API 5L-Grade B on Port Pirie lateral, Burra lateral, Angaston lateral. API 5L-X42 on Port Bonython lateral.
Wall Thickness	For most of the length of the mainline, the wall thickness is 7.92 mm. At minor road crossings, mainline valves and pig traps, the wall thickness is 9.53 mm and at railways and road crossings, the pipeline runs in a casing pipe, vented to atmosphere at both ends and electrically insulated from the pipeline.
Lengths and Pipe Diameters	See table (Attachment A)
External Coating	Most of the pipeline and laterals are coated with Plicoflex black PVC tape over butyl mastic primer which was applied over the ditch. The Wasleys to Adelaide loop-line is coated with FBE. The Whyalla lateral and laterals off the Whyalla lateral is coated with Polyken primer and an inner and outer wrap. The Dry Creek and Burra laterals are coated with Shaw yellow jacket with Canusa heat shrink sleeves. All river crossings are also coated with concrete over the normal coating.

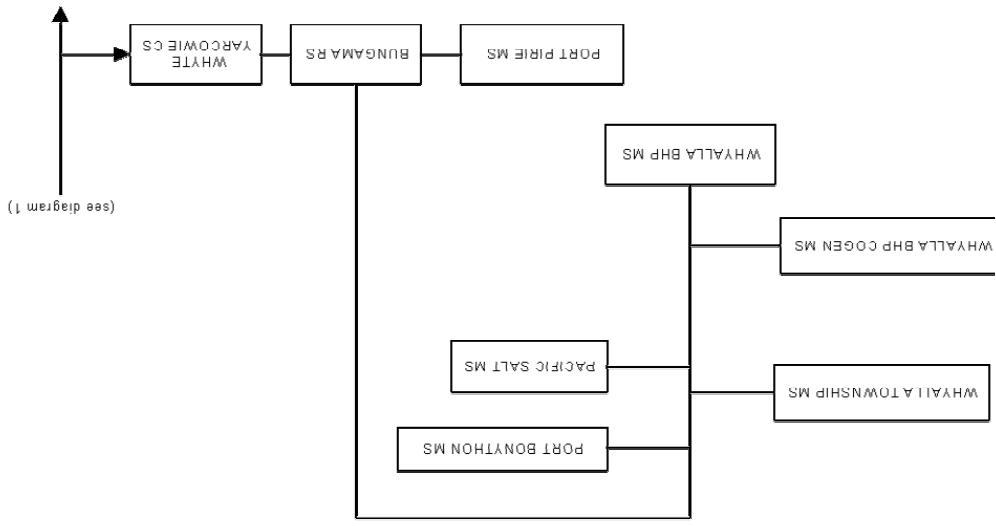
Internal Coating	Most of the pipeline does not have an internal coating. The Wasleys to Adelaide loop-line has an internal lining of Interpon epoxy sprayed paint.
Depth of Cover	Nominally 900 mm for most of the pipeline route. 1200 mm at road and rail crossings and in residential areas. Various depths for directional drills, other river crossings and gulf crossings.
Compressor Stations	See table (Attachment A)
Existing Delivery Points	See table (Attachment B)

NOTE: Taproot, Gepps Cross and Elizabeth Meter Stations constitute the Adelaide Metro Delivery Point

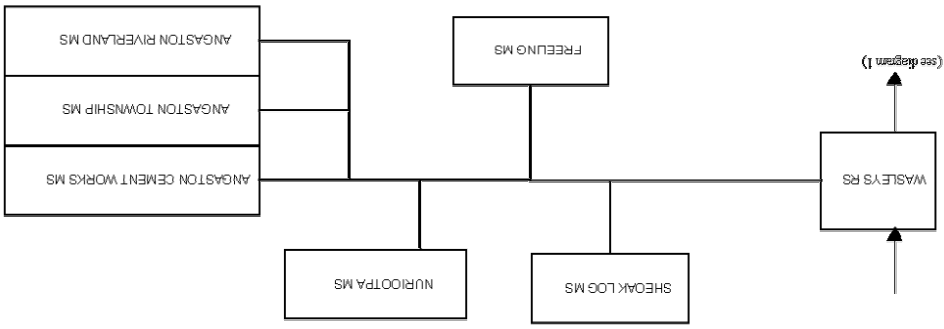


**MOOMBA - ADELAIDE
PIPELINE SYSTEM**
(Diagram 1)

**MOOMBA - ADELAIDE PIPELINE
SYSTEM
WHYALLA & PIRIE LATERAL
(Diagram 2)**



**MOOMBA - ADELAIDE PIPELINE SYSTEM
ANGASTON LATERAL
(Diagram 3)**



Attachment A
Pipeline System - Components

Pipeline	Date Commissioned	Length (kilometres)	Diameter (mm)
Moomba to Torrens Island	November 1969	781.0	559
Wasleys to Torrens Island Loop Line (includes 4.4 kilometre marine crossing)	September 1986	42.0	508
Peterborough Lateral (to Regulator at Cotton Road)	May 1972	1.9	89
Port Pirie Lateral	July 1976	77.8	168
Port Pirie to Whyalla Lateral (includes 11.5 kilometre marine crossing)	April 1989	87.8	219
Port Bonython Lateral (off Whyalla Lateral)	April 1989	5.5	114
Burra Lateral	June 1974	15.0	89
Angaston Lateral	November 1969	38.7	219
Nuriootpa Lateral (off Angaston Lateral)	September 1972	1.6	114
Tarac Lateral	September 1972 (extended 1982)	0.4	89
Dry Creek Lateral □ Meter Station to Power Station	August 1971	1.3	323
Mintaro Lateral	March 1984	0.3	219
Osborne Lateral (includes a 840 metre marine crossing)	November 1997	1.1	273
Osborne Cogeneration Plant Lateral	November 1997	0.2	219
Taperoo Lateral (includes a 360 metre marine crossing)	November 1969	1.2	323

Compressor Station	Compressor Unit Details
CS1 Unit A Unit B	Solar Taurus 60/C40 Ingersoll-Rand GT-22 Allison 501KC/IR CDP416
CS2 Unit A Unit B	Solar Taurus 60/C40 Ingersoll-Rand GT-22 Allison 501KC5/IR CDP416
CS3 Unit A Unit B	Solar Taurus 60/C40 Ingersoll-Rand GT-22 Allison 501KC/IR CDP416
CS4 Unit A Unit B	Ingersoll-Rand GT-22 Allison 501KC5/IR CDP416 Ingersoll-Rand GT-22 Allison 501KC5/IR CDP416
CS5 Unit A Unit B	Solar Taurus 60/C40 Ingersoll-Rand GT-22 Allison 501KC/IR CDP416
CS6 Unit A Unit B	Solar Taurus 60/C40 Ingersoll-Rand GT-22 Allison 501KC/IR CDP416
CS7 Unit A Unit B	Solar Centaur T4002/Solar C307 Solar Centaur T4002/Solar C307
Whyte Yarcowie	Waukesha F3521G/Ariel JGR/2 reciprocating compressor unit
Angaston	Brooks Crompton Parkinson Frame AE 315M Electric Motor (150kW) Gemini HPD reciprocating compressor unit.

Attachment B
Register of Capacity as at Lodgement Date

Receipt Point	Number of Customers	Maximum Pressure kPa	Minimum Pressure kPa	Maximum Capacity TJ/day
Moomba	2	7322	6200	455
EAPL Interconnect*	1	6378/7322	6250/6200	80
System Total	2			

* Maximum and minimum pressures are dependent on the direction of flow.
Capacity depends on pressure.

Delivery Point	Primary Capacity TJ/d	Maximum Capacity TJ/d	Available Capacity TJ/d	Number of Customers	Maximum Pressure kPa	Minimum Pressure kPa
Mainline Zone						
Peterborough		1.01	0	1	450	250
Burra		1.64	0	1	300	70
Mintaro		32.30	0	1	2100	1700
Wasleys Farms		0.24	0	1	420	250
Virginia		0.92	0	1	420	250
Adelaide Metro		274.60	0	2	1925	1650
Dry Creek		77.00	0	1	2000	1350
Torrens Island		303.00	0	1	2100	1700
Osborne		53.30	0	1	3160	1700
Penfield Roses		0.32	0	1	420	250
HiTech Hydroponics		0.23	0	1	250	70
Zone Total	281	744.56	0	2		
Iron Triangle Zone						
Pt Pirie		6.57	0	1	900	600
Pt Bonython		10.1	0	1	1350	1100
Whyalla Township		1.29	0	1	150	80
Whyalla BHP		29.00	0	1	850	650
Whyalla BHP Cogen		4.85	0	1	2300	1850
Pacific Salt		3.70	0	1	420	250
Zone Total	24.00	55.51	0	1		
Angaston Zone						
Freeling		0.92	0	1	420	250
Nuriootpa		5.45	0	1	1200	950
Sheoak Log		0.10	0	1	420	250
Angaston Township		0.92	0	1	450	250
Angaston ABC		13.30	0	1	950	600
Angaston Riverland		12.00	0	1	10000	2500
Zone Total	18.00	32.69	0	2		
System Total	323	832.76	0	2		

All Maximum Capacity Quantities are based on relevant pressures, gas specific gravity of 0.61, average inlet temperatures and a heating value of 38.5 MJ/m³.

Attachment C

Historical Demand Profile - Calendar 1997

Receipt Point	Total Annual Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	77240264	211617	328577	Feb 5
EAPL Interconnect	--	--	--	--
System Total	77240264	211617	328577	Feb 5

Delivery Point	Total Annual Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Oct 31
Wasleys Farms				n/a
Virginia				Jul 5
Elizabeth				Aug 25
Gepps Cross				Jul 15
Dry Creek				Feb 5
Taperoo				Dec 26
Torrens Island				Feb 20
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	67364708	184561	281061	Feb 20
Iron Triangle Zone				
Pt Pirie				Jul 15
Pt Bonython				May 1
Whyalla Township				Jul 21
Whyalla BHP				May 7
Whyalla BHP Cogen				Jul 10
Pacific Salt				n/a
Zone Total	6568100	17995	26653	May 16
Angaston Zone				
Freeling				Jan 21
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Jun 15
Angaston Riverland				Apr 8
Zone Total	2250472	6166	10615	Apr 17
System Total	76183280	208721	319702	Jan 20

Average Heating Value 39.09 MJ/m³
 Total Volume Delivered 1949161850 m³

**Attachment C
Historical Demand Profile – Calendar 1998**

Receipt Point	Total Annual Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	80911301	221675	327798	Jul 15
EAPL Interconnect	--	--	--	--
System Total	80911301	221675	327798	Jul 15

Delivery Point	Total Annual Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Jul 29
Burra				Oct 8
Mintaro				Aug 24
Wasleys Farms				n/a
Virginia				Aug 1
Elizabeth				Jul 28
Gepps Cross				Jul 28
Dry Creek				Jul 21
Taperoo				Aug 24
Torrens Island				Jul 21
Osborne				Nov 17
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	71564624	196067	294233	Jul 21
Iron Triangle Zone				
Pt Pirie				Apr 1
Pt Bonython				Nov 21
Whyalla Township				Jul 28
Whyalla BHP				Jun 24
Whyalla BHP Cogen				Jul 30
Pacific Salt				n/a
Zone Total	6235153	17083	26533	Jul 21
Angaston Zone				
Freeling				Feb 19
Nuriootpa				Mar 15
Sheoak Log				n/a
Angaston Township				Aug 10
Angaston ABC				Nov 18
Angaston Riverland				Mar 20
Zone Total	1814980	4973	5251	Apr 2
System Total	79614757	218123	378746	Jul 21

Average Heating Value 38.88 MJ/m³
 Total Volume Delivered 2047832522 m³

Attachment D
Historical Demand Profile - January 1997

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5938217	191555	291455	Jan 20
EAPL Interconnect	--	--	--	--
System Total	5938217	191555	291455	Jan 20

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Jan 4
Wasleys Farms				n/a
Virginia				Jan 8
Elizabeth				Jan 16
Gepps Cross				Jan 16
Dry Creek				Jan 23
Taperoo				Jan 16
Torrens Island				Jan 20
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				-
Zone Total	5053505	163016	268426	Jan 20
Iron Triangle Zone				
Pt Pirie				Jan 14
Pt Bonython				Jan 30
Whyalla Township				Jan 23
Whyalla BHP				Jan 16
Whyalla BHP Cogen				Jan 1
Pacific Salt				n/a
Zone Total	594592	19180	24189	Jan 22
Angaston Zone				
Freeling				Jan 21
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Jan 23
Angaston Riverland				Jan 21
Zone Total	179068	5776	7716	Jan 23
System Total	5827165	187973	319702	Jan 20

Average Heating Value	39.10	MJ/m ³
Total Volume Delivered	149043254	m ³

Attachment D
Historical Demand Profile - February 1997

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6457363	208302	328577	Feb 5
EAPL Interconnect	--	--	--	-
System Total	6457363	208302	328577	Feb 5

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Feb 20
Wasleys Farms				n/a
Virginia				Feb 11
Elizabeth				Feb 11
Gepps Cross				Feb 3
Dry Creek				Feb 5
Taperoo				Feb 3
Torrens Island				Feb 20
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				-
Zone Total	5688351	203155	281061	Feb 20
Iron Triangle Zone				
Pt Pirie				Feb 13
Pt Bonython				Feb 14
Whyalla Township				Feb 11
Whyalla BHP				Feb 14
Whyalla BHP Cogen				Feb 11
Pacific Salt				n/a
Zone Total	493180	17614	26161	Feb 14
Angaston Zone				
Freeling				
Nuriootpa				
Sheoak Log				
Angaston Township				
Angaston ABC				
Angaston Riverland				
Zone Total	154399	5514	6757	Feb 26
System Total	6335930	226283	317290	Feb 20

Average Heating Value	39.09	MJ/m ³
Total Volume Delivered	162097889	m ³

**Attachment D
Historical Demand Profile - March 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5313343	171398	226271	Mar 11
EAPL Interconnect	--	--	--	-
System Total	5313343	171398	226271	Mar 11

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Mar 10
Wasleys Farms				n/a
Virginia				Mar 31
Elizabeth				Mar 24
Gepps Cross				Mar 24
Dry Creek				Mar 10
Taperoo				Mar 29
Torrens Island				Mar 7
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	4485351	144689	178126	Mar 7
Iron Triangle Zone				
Pt Pirie				Mar 20
Pt Bonython				Mar 23
Whyalla Township				Mar 24
Whyalla BHP				Mar 27
Whyalla BHP Cogen				Mar 29
Pacific Salt				n/a
Zone Total	568284	18332	21751	Mar 27
Angaston Zone				
Freeling				Mar 3
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Mar 27
Angaston Riverland				Mar 18
Zone Total	205593	6632	9168	Mar 20
System Total	5259228	169653	225849	Mar 11

Average Heating Value 38.86 MJ/m³
 Total Volume Delivered 135350454 m³

**Attachment D
Historical Demand Profile - April 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5395626	179854	246631	Apr 2
EAPL Interconnect	--	--	--	-
System Total	5395626	179854	246631	Apr 2

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Apr 16
Wasleys Farms				n/a
Virginia				Apr 15
Elizabeth				Apr 17
Gepps Cross				Apr 17
Dry Creek				Apr 7
Taperoo				Apr 9
Torrens Island				Apr 2
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	4507995	150267	180557	Apr 2
Iron Triangle Zone				
Pt Pirie				Apr 22
Pt Bonython				Apr 10
Whyalla Township				Apr 7
Whyalla BHP				Apr 30
Whyalla BHP Cogen				Apr 16
Pacific Salt				n/a
Zone Total	608242	20275	24001	Apr 30
Angaston Zone				
Freeling				Apr 8
Nuriotpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Apr 12
Angaston Riverland				Apr 8
Zone Total	235338	7845	10615	Apr 17
System Total	5351575	178386	237170	Apr 2

Average Heating Value	38.77	MJ/m ³
Total Volume Delivered	138044963	m ³

**Attachment D
Historical Demand Profile - May 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6857910	221223	305846	May 14
EAPL Interconnect	--	--	--	-
System Total	6857910	221223	305846	May 14

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				May 13
Wasleys Farms				n/a
Virginia				May 29
Elizabeth				May 30
Gepps Cross				May 29
Dry Creek				May 10
Taperoo				May 9
Torrens Island				May 14
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5913755	190766	222114	May 14
Iron Triangle Zone				
Pt Pirie				May 6
Pt Bonython				May 1
Whyalla Township				May 30
Whyalla BHP				May 7
Whyalla BHP Cogen				May 30
Pacific Salt				n/a
Zone Total	661264	21331	26653	May 16
Angaston Zone				
Freeling				May 1
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				May 24
Angaston Riverland				May 28
Zone Total	195236	6298	8935	May 22
System Total	6770255	218395	305918	May 14

Average Heating Value	38.90	MJ/m ³
Total Volume Delivered	174034968	m ³

**Attachment D
Historical Demand Profile - June 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	7213241	240441	315333	Jun 18
EAPL Interconnect	--	--	--	-
System Total	7213241	240441	315333	Jun 18

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Jun 16
Wasleys Farms				n/a
Virginia				Jun 30
Elizabeth				Jun 2
Gepps Cross				Jun 25
Dry Creek				Jun 17
Taperoo				Jun 19
Torrens Island				Jun 18
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6338579	211286	216061	Jun 18
Iron Triangle Zone				
Pt Pirie				Jun 26
Pt Bonython				Jun 3
Whyalla Township				Jun 25
Whyalla BHP				Jun 18
Whyalla BHP Cogen				Jun 18
Pacific Salt				n/a
Zone Total	486559	16219	19555	Jun 18
Angaston Zone				
Freeling				Jun 16
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Jun 15
Angaston Riverland				Jun 3
Zone Total	201905	6730	8592	Jun 10
System Total	7027043	234235	311806	Jun 18

Average Heating Value	38.78	MJ/m ³
Total Volume Delivered	181205823	m ³

**Attachment D
Historical Demand Profile - August 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	7394850	238544	306110	Aug 7
EAPL Interconnect	--	--	--	-
System Total	7394850	238544	306110	Aug 7

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Aug 25
Wasleys Farms				n/a
Virginia				Aug 2
Elizabeth				Aug 25
Gepps Cross				Aug 25
Dry Creek				Aug 6
Taperoo				Aug 20
Torrens Island				Aug 25
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6602540	212985	209729	Aug 25
Iron Triangle Zone				
Pt Pirie				Aug 21
Pt Bonython				Aug 7
Whyalla Township				Aug 25
Whyalla BHP				Aug 22
Whyalla BHP Cogen				Aug 1
Pacific Salt				n/a
Zone Total	535848	17285	21218	Aug 21
Angaston Zone				
Freeling	2235	72	163	Aug 19
Nuriootpa	5101	165	n/a	n/a
Sheoak Log	1920	62	n/a	n/a
Angaston Township	8039	259	n/a	n/a
Angaston ABC	113702	3668	5314	Aug 14
Angaston Riverland	46550	1502	2592	Aug 1
Zone Total	177547	5727	8282	Aug 15
System Total	7315935	235998	287136	Aug 25

Average Heating Value	40.16	MJ/m ³
Total Volume Delivered	182167844	m ³

**Attachment D
Historical Demand Profile - September 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6133363	204445	256460	Sep 2
EAPL Interconnect	--	--	--	-
System Total	6133363	204445	256460	Sep 2

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Sep 19
Wasleys Farms				n/a
Virginia				Sep 4
Elizabeth				Sep 4
Gepps Cross				Sep 4
Dry Creek				Sep 20
Taperoo				Sep 26
Torrens Island				Sep 1
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5376156	179205	176842	Sep 2
Iron Triangle Zone				
Pt Pirie				Sep 18
Pt Bonython				Sep 16
Whyalla Township				Sep 1
Whyalla BHP				Sep 24
Whyalla BHP Cogen				Sep 4
Pacific Salt				n/a
Zone Total	554825	18494	23585	Sep 24
Angaston Zone				
Freeling				Sep 29
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Sep 20
Angaston Riverland				Sep 9
Zone Total	192709	6424	7826	Sep 19
System Total	6123690	204123	251691	Sep 2

Average Heating Value	39.32	MJ/m ³
Total Volume Delivered	155732794	m ³

Attachment D
Historical Demand Profile - October 1997

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6646563	214405	296845	Oct 31
EAPL Interconnect	--	--	--	-
System Total	6646563	214405	296845	Oct 31

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Oct 31
Wasleys Farms				n/a
Virginia				Oct 30
Elizabeth				Oct 31
Gepps Cross				Oct 31
Dry Creek				Oct 31
Taperoo				Oct 3
Torrens Island				Oct 31
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5788327	186720	234510	Oct 31
Iron Triangle Zone				
Pt Pirie				Oct 23
Pt Bonython				Oct 29
Whyalla Township				Oct 31
Whyalla BHP				Oct 28
Whyalla BHP Cogen				Oct 14
Pacific Salt				n/a
Zone Total	614878	19835	22726	Oct 28
Angaston Zone				
Freeling				Oct 14
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Oct 22
Angaston Riverland				Oct 21
Zone Total	202673	6538	9087	Oct 21
System Total	6605878	213093	312785	Oct 31

Average Heating Value	39.08	MJ/m ³
Total Volume Delivered	169030370	m ³

**Attachment D
Historical Demand Profile - November 1997**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6762466	225416	316037	Nov 1
EAPL Interconnect	--	--	--	-
System Total	6762466	225416	316037	Nov 1

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Nov 25
Wasleys Farms				n/a
Virginia				Nov 3
Elizabeth				Nov 17
Gepps Cross				Nov 17
Dry Creek				Nov 25
Taperoo				Nov 14
Torrens Island				Nov 25
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5953354	198445	247576	Nov 25
Iron Triangle Zone				
Pt Pirie				
Pt Bonython				
Whyalla Township				
Whyalla BHP				
Whyalla BHP Cogen				
Pacific Salt				
Zone Total	459755	15325	19720	Nov 6
Angaston Zone				
Freeling				Nov 17
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Nov 4
Angaston Riverland				Nov 20
Zone Total	182418	6081	8013	Nov 5
System Total	6595527	219851	297643	Nov 25

Average Heating Value	38.75	MJ/m ³	
Total Volume Delivered	170206930	m ³	

Attachment D Historical Demand Profile - December 1997

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5182524	167178	235152	Dec 15
EAPL Interconnect	--	--	--	-
System Total	5182524	167178	235152	Dec 15

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Dec 29
Wasleys Farms				n/a
Virginia				Dec 26
Elizabeth				Dec 15
Gepps Cross				Dec 18
Dry Creek				Dec 3
Taperoo				Dec 26
Torrens Island				Dec 16
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	4529577	146115	156879	Dec 16
Iron Triangle Zone				
Pt Pirie				Dec 23
Pt Bonython				Dec 8
Whyalla Township				Dec 18
Whyalla BHP				Dec 16
Whyalla BHP Cogen				Dec 24
Pacific Salt				n/a
Zone Total	453981	14645	20281	Dec 16
Angaston Zone				
Freeling				Dec 8
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				n/a
Angaston ABC				Dec 18
Angaston Riverland				Dec 18
Zone Total	171713	5539	8012	Dec 18
System Total	5155271	166299	226631	Dec 16

Average Heating Value 38.63 MJ/m³
Total Volume Delivered 133452406 m³

Attachment D
Historical Demand Profile - January 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6007215	193781	288747	Jan 12
EAPL Interconnect	--	--	--	--
System Total	6007215	193781	288747	Jan 12

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				n/a
Mintaro				Jan 11
Wasleys Farms				n/a
Virginia				Jan 29
Elizabeth				Jan 28
Gepps Cross				Jan 28
Dry Creek				Jan 12
Taperoo				Jan 29
Torrens Island				Jan 13
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5227880	168641	221664	Jan 13
Iron Triangle Zone				
Pt Pirie				Jan 22
Pt Bonython				Jan 1
Whyalla Township				Jan 28
Whyalla BHP				Jan 20
Whyalla BHP Cogen				Jan 29
Pacific Salt				n/a
Zone Total	498227	16072	22245	Jan 20
Angaston Zone				
Freeling				Jan 27
Nuriootpa				n/a
Sheoak Log				n/a
Angaston Township				Jan 28
Angaston ABC				Jan 19
Angaston Riverland				Jan 30
Zone Total	189166	6102	3232	Jan 30
System Total	5915273	190815	272847	Jan 13

Average Heating Value	38.58	MJ/m ³
Total Volume Delivered	153330571	m ³

**Attachment D
Historical Demand Profile - February 1998**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5581313	180042	279511	Feb 25
EAPL Interconnect	--	--	--	-
System Total	5581313	180042	279511	Feb 25

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				n/a
Burra				Feb 16
Mintaro				Feb 26
Wasleys Farms				n/a
Virginia				Feb 10
Elizabeth				Feb 17
Gepps Cross				Feb 17
Dry Creek				Feb 26
Taperoo				Feb 8
Torrens Island				Feb 25
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	4921971	175785	234905	Feb 25
Iron Triangle Zone				
Pt Pirie				Feb 3
Pt Bonython				Feb 27
Whyalla Township				Feb 16
Whyalla BHP				Feb 18
Whyalla BHP Cogen				Feb 8
Pacific Salt				n/a
Zone Total	443982	15857	19908	Feb 18
Angaston Zone				
Freeling				Feb 19
Nuriootpa				Feb 26
Sheoak Log				n/a
Angaston Township				Feb 17
Angaston ABC				Feb 7
Angaston Riverland				Feb 27
Zone Total	152595	5450	4220	Feb 27
System Total	5518548	197091	290587	Feb 25

Average Heating Value 38.33 MJ/m³
Total Volume Delivered 143962595 m³

**Attachment D
Historical Demand Profile – March 1998**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6166010	198904	324309	Mar 12
EAPL Interconnect	--	--	--	-
System Total	6166010	198904	324309	Mar 12

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Mar 19
Burra				Mar 7
Mintaro				Mar 11
Wasleys Farms				n/a
Virginia				Mar 19
Elizabeth				Mar 31
Gepps Cross				Mar 30
Dry Creek				Mar 3
Taperoo				Mar 31
Torrens Island				Mar 12
Osborne				-
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5335917	172126	238382	Mar 11
Iron Triangle Zone				
Pt Pirie				Mar 24
Pt Bonython				Mar 4
Whyalla Township				Mar 25
Whyalla BHP				Mar 24
Whyalla BHP Cogen				Mar 28
Pacific Salt				n/a
Zone Total	495050	15969	20315	Mar 24
Angaston Zone				
Freeling				Mar 11
Nuriootpa				Mar 15
Sheoak Log				n/a
Angaston Township				Mar 16
Angaston ABC				Mar 31
Angaston Riverland				Mar 20
Zone Total	231234	7459	5244	Mar 20
System Total	6062201	195555	297784	Mar 11

Average Heating Value	38.52	MJ/m ³
Total Volume Delivered	157383328	m ³

Attachment D
Historical Demand Profile - April 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	5257964	175265	213206	Apr 1
EAPL Interconnect	--	--	--	-
System Total	5257964	175265	213206	Apr 1

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Apr 27
Burra				Apr 14
Mintaro				n/a
Wasleys Farms				n/a
Virginia				Apr 17
Elizabeth				Apr 30
Gepps Cross				Apr 1
Dry Creek				Apr 11
Taperoo				Apr 17
Torrens Island				Apr 7
Osborne				Apr 15
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	4526485	150883	137821	Apr 7
Iron Triangle Zone				
Pt Pirie				Apr 1
Pt Bonython				Apr 1
Whyalla Township				Apr 27
Whyalla BHP				Apr 24
Whyalla BHP Cogen				Apr 25
Pacific Salt				n/a
Zone Total	452522	15084	23006	Apr 24
Angaston Zone				
Freeling				Apr 23
Nuriootpa				Apr 27
Sheoak Log				n/a
Angaston Township				Apr 22
Angaston ABC				Apr 4
Angaston Riverland				Apr 2
Zone Total	194030	6468	5251	Apr 2
System Total	5173037	172435	202031	Apr 1

Average Heating Value	38.43	MJ/m ³
Total Volume Delivered	134614485	m ³

Attachment D
Historical Demand Profile – May 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6848748	220927	313881	May 27
EAPL Interconnect	--	--	--	-
System Total	6848748	220927	313881	May 27

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				May 25
Burra				May 30
Mintaro				May 16
Wasleys Farms				n/a
Virginia				May 25
Elizabeth				May 26
Gepps Cross				May 27
Dry Creek				May 26
Taperoo				May 7
Torrens Island				May 20
Osborne				May 26
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6072269	195880	237144	May 20
Iron Triangle Zone				
Pt Pirie				May 5
Pt Bonython				May 28
Whyalla Township				May 25
Whyalla BHP				May 17
Whyalla BHP Cogen				May 20
Pacific Salt				n/a
Zone Total	519787	16767	19641	May 17
Angaston Zone				
Freeling				May 12
Nuriootpa				May 14
Sheoak Log				n/a
Angaston Township				May 7
Angaston ABC				May 2
Angaston Riverland				May 20
Zone Total	140629	4536	3611	May 20
System Total	6732685	217183	308211	May 20

Average Heating Value	38.72	MJ/m ³
Total Volume Delivered	173887734	m ³

**Attachment D
Historical Demand Profile - June 1998**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	7707137	256905	301233	Jun 23
EAPL Interconnect	--	--	--	-
System Total	7707137	256905	301233	Jun 23

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Jun 30
Burra				Jun 6
Mintaro				Jun 11
Wasleys Farms				n/a
Virginia				Jun 22
Elizabeth				Jun 22
Gepps Cross				Jun 30
Dry Creek				Jun 11
Taperoo				Jun 11
Torrens Island				Jun 23
Osborne				Jun 26
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6735857	224529	238654	Jun 11
Iron Triangle Zone				
Pt Pirie				Jun 2
Pt Bonython				Jun 21
Whyalla Township				Jun 23
Whyalla BHP				Jun 24
Whyalla BHP Cogen				Jun 8
Pacific Salt				n/a
Zone Total	622828	20761	25000	Jun 26
Angaston Zone				
Freeling				Jun 1
Nuriootpa				Jun 12
Sheoak Log				n/a
Angaston Township				Jun 18
Angaston ABC				Jun 17
Angaston Riverland				Jun 18
Zone Total	139163	4639	3341	Jun 18
System Total	7497848	249928	317864	Jun 11

Average Heating Value 38.78 MJ/m³
 Total Volume Delivered 193359186 m³

Attachment D
Historical Demand Profile - July 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	8744182	282070	327798	Jul 1
EAPL Interconnect	--	--	--	-
System Total	8744182	282070	327798	Jul 1

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Jul 29
Burra				Jul 17
Mintaro				Jul 21
Wasleys Farms				n/a
Virginia				Jul 28
Elizabeth				Jul 28
Gepps Cross				Jul 28
Dry Creek				Jul 21
Taperoo				Jul 28
Torrens Island				Jul 21
Osborne				Jul 22
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	7778916	250933	294233	Jul 21
Iron Triangle Zone				
Pt Pirie				Jul 28
Pt Bonython				Jul 21
Whyalla Township				Jul 28
Whyalla BHP				Jul 21
Whyalla BHP Cogen				Jul 30
Pacific Salt				n/a
Zone Total	688898	22223	26533	Jul 21
Angaston Zone				
Freeling				Jul 27
Nuriootpa				Jul 12
Sheoak Log				n/a
Angaston Township				Jul 28
Angaston ABC				Jul 2
Angaston Riverland				Jul 31
Zone Total	87988	2838	2582	Jul 31
System Total	8555802	275994	378746	Jul 21

Average Heating Value 39.22 MJ/m³
Total Volume Delivered 218121779 m³

**Attachment D
Historical Demand Profile –August 1998**

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	8327284	268625	322647	Aug 26
EAPL Interconnect	--	--	--	-
System Total	8327284	268625	322647	Aug 26

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Aug 3
Burra				Aug 11
Mintaro				Aug 24
Wasleys Farms				n/a
Virginia				Aug 1
Elizabeth				Aug 3
Gepps Cross				Aug 11
Dry Creek				Aug 25
Taperoo				Aug 24
Torrens Island				Aug 24
Osborne				Aug 20
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	7455513	240500	271831	Aug 24
Iron Triangle Zone				
Pt Pirie				Aug 4
Pt Bonython				Aug 14
Whyalla Township				Aug 1
Whyalla BHP				Aug 19
Whyalla BHP Cogen				Aug 25
Pacific Salt				n/a
Zone Total	538156	17360	20990	Aug 19
Angaston Zone				
Freeling				Aug 17
Nuriootpa				Aug 31
Sheoak Log				n/a
Angaston Township				Aug 10
Angaston ABC				Aug 30
Angaston Riverland				Aug 27
Zone Total	126507	4081	2998	Aug 27
System Total	8120176	261941	345049	Aug 24

Average Heating Value 39.60 MJ/m³
Total Volume Delivered 205075752 m³

Attachment D
Historical Demand Profile - September 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6937228	231241	298972	Sep 16
EAPL Interconnect	--	--	--	--
System Total	6937228	231241	298972	Sep 16

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Sep 7
Burra				Sep 15
Mintaro				Sep 22
Wasleys Farms				n/a
Virginia				Sep 6
Elizabeth				Sep 15
Gepps Cross				Sep 15
Dry Creek				Sep 11
Taperoo				Sep 1
Torrens Island				Sep 16
Osborne				Sep 23
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6259125	208638	203245	Sep 16
Iron Triangle Zone				
Pt Pirie				Sep 9
Pt Bonython				Sep 26
Whyalla Township				Sep 14
Whyalla BHP				Sep 3
Whyalla BHP Cogen				Sep 19
Pacific Salt				n/a
Zone Total	449628	14988	18433	Sep 3
Angaston Zone				
Freeling				Sep 29
Nuriootpa				Sep 22
Sheoak Log				n/a
Angaston Township				Sep 15
Angaston ABC				Sep 19
Angaston Riverland				Sep 16
Zone Total	187786	6260	3400	Sep 16
System Total	6896539	229885	270273	Sep 16

Average Heating Value	39.01	MJ/m ³
Total Volume Delivered	176785650	m ³

Attachment D
Historical Demand Profile – October 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6999015	225775	302383	Oct 8
EAPL Interconnect	--	--	--	-
System Total	6999015	225775	302383	Oct 8

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Oct 6
Burra				Oct 8
Mintaro				Oct 15
Wasleys Farms				n/a
Virginia				Oct 8
Elizabeth				Oct 20
Gepps Cross				Oct 13
Dry Creek				Oct 14
Taperoo				Oct 31
Torrens Island				Oct 8
Osborne				Oct 22
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	6340909	204545	220032	Oct 8
Iron Triangle Zone				
Pt Pirie				Oct 29
Pt Bonython				Oct 3
Whyalla Township				Oct 9
Whyalla BHP				Oct 25
Whyalla BHP Cogen				Oct 8
Pacific Salt				n/a
Zone Total	490090	15809	19883	Oct 21
Angaston Zone				
Freeling				Oct 20
Nuriootpa				Oct 11
Sheoak Log				n/a
Angaston Township				Oct 13
Angaston ABC				Oct 31
Angaston Riverland				Oct 7
Zone Total	78052	2518	3130	Oct 7
System Total	6909051	222873	270938	Oct 8

Average Heating Value 38.87 MJ/m³
 Total Volume Delivered 177730860 m³

Attachment D
Historical Demand Profile - November 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6148481	204949	288756	Nov 26
EAPL Interconnect	--	--	--	-
System Total	6148481	204949	288756	Nov 26

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Nov 2
Burra				Nov 1
Mintaro				Nov 24
Wasleys Farms				n/a
Virginia				Nov 22
Elizabeth				Nov 11
Gepps Cross				Nov 2
Dry Creek				Nov 24
Taperoo				Nov 2
Torrens Island				Nov 25
Osborne				Nov 17
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5389155	179639	181483	Nov 25
Iron Triangle Zone				
Pt Pirie				Nov 27
Pt Bonython				Nov 21
Whyalla Township				Nov 12
Whyalla BHP				Nov 19
Whyalla BHP Cogen				Nov 16
Pacific Salt				n/a
Zone Total	498311	16610	22135	Nov 19
Angaston Zone				
Freeling				Nov 12
Nuriootpa				Nov 30
Sheoak Log				n/a
Angaston Township				Nov 17
Angaston ABC				Nov 18
Angaston Riverland				Nov 13
Zone Total	173376	5779	2853	Nov 13
System Total	6060842	202028	234741	Nov 25

Average Heating Value	38.95	MJ/m ³
Total Volume Delivered	155589347	m ³

Attachment D
Historical Demand Profile – December 1998

Receipt Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Moomba	6186624	199569	304297	Dec 11
EAPL Interconnect	--	--	--	-
System Total	6186624	199569	304297	Dec 11

Delivery Point	Total Monthly Quantity, GJ	Average Daily Quantity, GJ	Daily Peak Quantity, GJ	Peak Day Date
Mainline Zone				
Peterborough				Dec 21
Burra				Dec 3
Mintaro				Dec 22
Wasleys Farms				n/a
Virginia				Dec 5
Elizabeth				Dec 3
Gepps Cross				Dec 4
Dry Creek				Dec 11
Taperoo				Dec 1
Torrens Island				Dec 9
Osborne				Dec 14
Penfield Roses				n/a
HiTech Hydroponics				n/a
Zone Total	5520623	178085	232217	Dec 11
Iron Triangle Zone				
Pt Pirie				Dec 15
Pt Bonython				Dec 28
Whyalla Township				Dec 4
Whyalla BHP				Dec 12
Whyalla BHP Cogen				Dec 27
Pacific Salt				n/a
Zone Total	537674	17344	21562	Dec 12
Angaston Zone				
Freeling				Dec 15
Nuriootpa				Dec 4
Sheoak Log				n/a
Angaston Township				Dec 1
Angaston ABC				Dec 4
Angaston Riverland				Dec 10
Zone Total	114454	3692	3244	Dec 10
System Total	6172751	199121	280815	Dec 11

Average Heating Value 39.07 MJ/m³
Total Volume Delivered 157991235 m³

Attachment E
(clause 2.3(c))

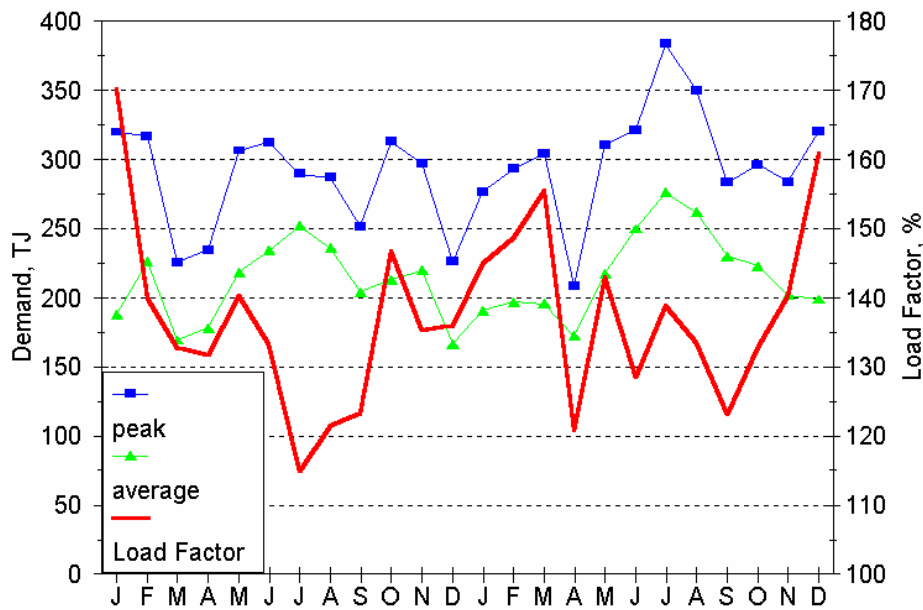
1. **Average Daily and Peak Demand**

The following information is attached:

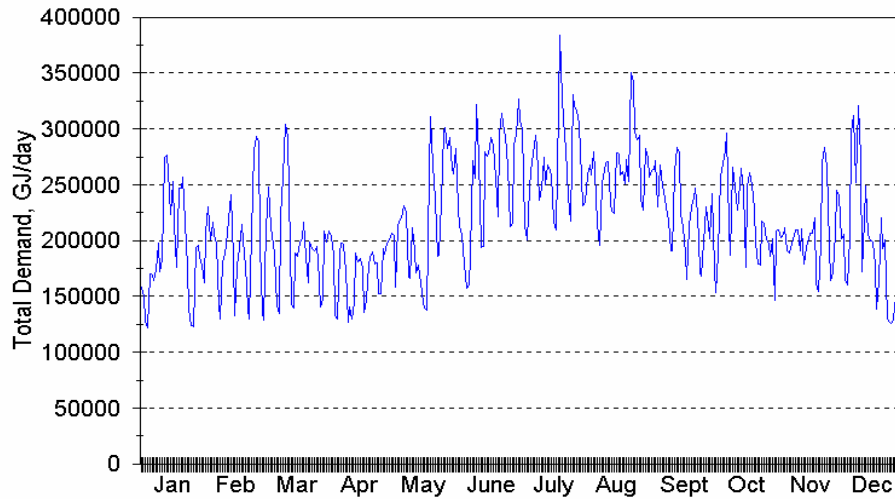
- Tabulation of average day and peak day for each of the 1989 to 1998 years, also showing load factor,
- Graph of daily total demand for 1998, and
- Graph of average day and peak day for each month of 1997 and 1998.

Year	Average Day (TJ/day)	Peak Day (TJ/day)	Load Factor (Peak/Average)
1989	245.9	350.3	142.5
1990	215.9	324.8	150.5
1991	204.4	317.7	155.5
1992	222.1	347.3	156.4
1993	231.7	342.3	147.7
1994	230.5	315.6	136.9
1995	215.3	324.5	150.7
1996	198.5	340.5	171.5
1997	209.1	319.7	152.9
1998	218.1	383.7	175.9

Average and Peak Days - 1997-8



Demand - 1998



2. System Load Profile By Month

The following table provides an approximate breakdown of the annual demand month by month as a percentage of the total annual load. The percentages are based on the load profiles of the years 1994 - 1998.

Month	% of Total Annual Load
January	7.6
February	7.6
March	7.9
April	7.1
May	8.5
June	9.1
July	10.1
August	9.7
September	8.3
October	8.9
November	8.0
December	7.2
Total	100.0

3. Number of Users on the Pipeline System as at December 1998

Number of Users	2
------------------------	---

SCHEDULE 2

MHQ's
(clause 43.1)

On a Day the User must not:

- (a) supply a quantity of Gas in any 1 hour period at any Receipt Point in excess of:
 - (i) 110 per cent of 1/24th of the User's Scheduled Receipt Quantity at that Receipt Point; or
 - (ii) such greater proportion of the Scheduled Receipt Quantity at that Receipt Point as the Service Provider may, in its absolute discretion approve;
- (b) take delivery of quantities of Gas at any Delivery Point in any 1 hour period in excess of 1/24th of the User's prorata share of Maximum Capacity at that point, based upon the sum of all Scheduled Delivery Quantities at that point (as notified on the EBB);
- (c) take delivery of quantities of Gas in aggregate at all Delivery Points within a Zone (for the Mainline and Angaston Zones), in excess of:
 - (i) 144% of 1/24th of the sum of the Scheduled Delivery Quantities for that Day in any 1 hour period;
 - (ii) 138% of 3/24ths of the sum of the Scheduled Delivery Quantities for that Day in any period of 3 consecutive hours;
 - (iii) 132% of 5/24ths of the sum of the Scheduled Delivery Quantities for that Day in any period of 5 consecutive hours; or
 - (iv) 126% of 12/24ths of the sum of the Scheduled Delivery Quantities for that Day in any period of 12 consecutive hours; or
- (d) take delivery of quantities of Gas in aggregate at all Delivery Points in the Iron Triangle Zone in excess of:
 - (i) 115% of 1/24th of the sum of the Scheduled Delivery Quantities in that Zone for that Day in any 1 hour period;
 - (ii) 112% of 3/24ths of the sum of the Scheduled Delivery Quantities in that Zone for that Day in any period of 3 consecutive hours;
 - (iii) 109% of 6/24ths of the sum of the Scheduled Delivery Quantities in that Zone for that Day in any period of 6 consecutive hours; or
 - (iv) 105% of 12/24ths of the sum of the Scheduled Delivery Quantities in that Zone for that Day in any period of 12 consecutive hours.

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SCHEDULE 3

Gas Specification (clause 43.1)

1. Hydrogen Sulfide and Total Sulfur

The Gas must not contain more than 5.7 mg/m³ of hydrogen sulfide nor more than 23mg/m³ of total sulfur or sulfur compounds

2. Mercaptans

The Gas must not contain more than 4.6 mg/m³ of mercaptans.

3. Water Vapour

The Gas must not contain more than 112 mg/m³ of water vapour.

4. Carbon Dioxide and Nitrogen

The Gas must not contain more than 3% by volume of either carbon dioxide or nitrogen individually and must not contain more than 6% by volume of combined non-hydrocarbon gases including, but not limited to, carbon dioxide, nitrogen and oxygen.

5. Oxygen

The Gas must not contain in excess of one-tenth of 1% by volume of oxygen, and the User must use its best endeavours to keep the Gas completely free of oxygen.

6. Dust, Gums, etc.

The Gas must be free of objectionable odours, dust, gum, sand, dirt, crude oil, contaminants, impurities and other solid or liquid or hazardous matter which might interfere with its merchantability or cause injury or damage, risk to health, or interfere with the proper operation of facilities, lines, regulators, meters or other appliances through which it flows.

7. Hydrocarbon Dew Point

The hydrocarbon dew point of the Gas must be less than 10° C at 3500 kPa (measured at the Receipt Point) and low enough to prevent the condensation of Gas within the Pipeline System.

8. Average Heating Value

The average heating value of the Gas received at the Receipt Point in any Day must not be less than 37.45 MJ/m³. This minimum value may be reduced as mutually agreed if required by operating conditions but in no event will the heating value of the gas received at any time be less than 36.69 MJ/m³.

9. **Wobbe Index**

The average Wobbe Index of the Gas received into the Pipeline System at any time will not be less than 47.4 nor more than 51.5 as calculated in accordance with the following formula:

$$WI = \sqrt{\frac{HV}{SG}}$$

where: **HV** means heating value in megajoules per cubic metre (MJ/m³) (where 'heating value' means the gross or higher heating value expressed in MJ/m³ produced by the complete combustion of one cubic metre of Gas with air, at Standard Conditions, with the Gas free of all water vapour, the products of combustion cooled to a temperature of 15°C, and the water vapour formed by combustion condensed to the liquid state.

SG means specific gravity of the Gas relative to air (where the specific gravity of air = 1.000).

SCHEDULE 4

Tariff Schedule
(clause 43.1)

1. **Reference Service - FT Service**

Charge/Charge Rate	Amount	Payable
Capacity Charge	MDQ (in GJ/day) x 365 x Capacity Charge Rate	In 12 equal Monthly instalments.
Capacity Charge Rate	\$0.4101 per GJ	N/A.
Whyalla Lateral Surcharge	\$0.2082 per GJ	If applicable, in addition to the Capacity Charge Rate.
FT Commodity Charge Rate	\$0.0858 per GJ	Monthly for each GJ of Gas delivered to User during that Month.
FT Customer Charge	\$100 per Month	Monthly.
Excess Imbalance Charge Rate	\$0.30 per GJ	See clauses 12.3(b) and 19.3.
Zone Variation Charge Rate	\$0.30 per GJ	See clause 19.7.
Default Charge Rate	\$7.50 per GJ	See clauses 24.4 and 25.5.

2. **Rebatable Service - IT Service**

Charge/Charge Rate	Amount	Payable
IT Commodity Charge Rate	\$0.5702 per GJ	Monthly for each GJ of Gas delivered to User during that Month.
IT Customer Charge	\$50 per Month	Monthly.
Excess Imbalance Charge Rate	\$0.30 per GJ	See clauses 12.3(b) and 19.3.
Default Charge Rate	\$7.50 per GJ	See clauses 24.4 and 25.5

3. **Other Charges**

Charge	Amount	Payable
Application Fee – FT Service	\$5,000	On application for FT Service.
Application Fee – IT Service	\$5,000	On application for IT Service.
Application Fee – Non- Specified Service	\$5,000	On application for a Non- Specified Service
EBB User Charge	\$25	See clause 27.2(b)(ii).
EBB Public Data Charge	\$0.10 per A4 page	See clause 27.4(c)(i).
EBB Proprietary Data Charge	\$0.10 per A4 page	See clause 27.4(c)(ii).

SCHEDULE 5

Forms for EBB

1. EBB System Agreement
2. Request for Service
3. Request for Credit and Financial Information
4. Acknowledgement of Receipt of Complying Request for Service (FT, IT, Non-Specified)
5. Rejection of Request for Service (FT, IT, Non-Specified)

6. Request for Confirmation to Remain in Queue

7. Notification of Removal of Prospective User from Queue (FT, IT, Non-Specified)
8. Notification of Retention Allowance (FT, IT)
9. Monthly Forecast for Year (FT)
10. Daily Forecast for Month (FT)
11. Initial Delivery Nominations (FT)
12. Confirmation of Initial Delivery Nominations (FT)

13. Notification of Initial Nominated Receipt and Delivery Quantities (FT)
14. Notification of Final Nominated Receipt and Delivery Quantities (FT, IT)
15. Request for Authorised Variation (FT, IT)
16. Response to Request for Authorised Variation (FT, IT)
17. Notification of Capacity Possibly Available for IT Service (IT)
18. Notification of Capacity Available for IT Service (IT)
19. Initial Delivery Nominations for IT Service (IT)
20. Confirmation of Initial Delivery Nominations (IT)
21. Notification of Initial Nominated Receipt and Delivery Quantities (IT)

22. Notification of Scheduled Quantities (FT, IT)
23. Notification of Zone Variation (FT, IT)
24. Notification of Imbalance (FT, IT)
25. Notification of Imbalance Trade (FT, IT)

26. Notification of Real Time Date and Excess Imbalance (FT, IT)
27. Notification of Curtailment (FT, IT)
28. Notification of an OFO (FT, IT)
29. Notification of Marketable FT Parcel Release (FT)
30. Acceptance of Marketable FT Parcel Release (FT)
31. Notification of Marketable IT Parcel Release (IT)
32. Acceptance of Marketable IT Parcel Release (IT)
33. Capacity Release - Register of Marketable Parcels on Offer (FT, IT)
34. Request for EBB Back-up Data (FT, IT)
35. Notification of Abandonment of Receipt Point or Delivery Point (FT, IT)
36. Spare Capacity Notice

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EBB SYSTEM AGREEMENT
(clause 27.2(b))

FORM 1

AGREEMENT dated

BETWEEN EPIC ENERGY SOUTH AUSTRALIA PTY LIMITED
(ABN 54 068 599 815) ('Service Provider')

AND THE PERSON DESCRIBED IN ITEM 1 OF THE SCHEDULE ('EBB User')

RECITALS

- A. The EBB User has requested access to the EBB which has been established by the Service Provider to assist it in providing Services on the Pipeline System.
- B. The Service Provider has agreed to allow the EBB User to access and use the EBB on the terms and conditions of this Agreement.

AGREEMENT

1. INTERPRETATION

In this Agreement, unless the contrary intention appears:

(a) '**Agreement**' means this EBB System Agreement;

(b) words defined in the Access Arrangement have the same meanings in this Agreement;

(c) '**Access Arrangement**' means the Access Arrangement for the Pipeline System submitted by the Service Provider pursuant to the Code and approved by the Regulator as varied from time to time (a copy of which, in its current form as at the date of this Agreement, the User acknowledges having received); and

(d) the interpretation provisions in clause 43.2, and the miscellaneous provisions in clause 42, of the Access Arrangement, apply to this Agreement.

2. EBB SERVICE

The Service Provider will provide access to the EBB User, and the EBB User will use the EBB:

(a) only for the purposes described in the Access Arrangement; and

(b) in accordance with this Agreement and the relevant provisions of the Access Arrangement.

3. EBB CHARGE

The EBB User will pay an EBB User Charge of \$25 upon the execution of this

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Agreement.

4. EBB USER'S OBLIGATIONS

4.1 The EBB User must:

(a) abide by the rules for the use of the EBB set out in Schedule 1 (as varied from time to time by the Service Provider and posted by it on the EBB);

(b) confine its use of the EBB to purposes necessary to meet its obligations, and to exercise its rights, under its own contract(s) for Services;

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(c) only seek access to information that is either:

(i) specific to the EBB User; or

(ii) relevant to all EBB Users;

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(d) not, and not attempt to;

(i) corrupt; or

(ii) interfere with,

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the operation of the EBB; and

(e) implement appropriate security procedures in relation to:

(i) its EBB User ID and password (each of which are set out in Schedule 2); and

(ii) its access to the EBB,

to prevent unauthorised access to its information or to the EBB.

4.2 The EBB User acknowledges and agrees that

the Service Provider would incur significant costs, expenses and inconvenience if the EBB User were to breach any of its obligations in clause 4.1.

5. TERM

This Agreement will commence on the date of its execution and will terminate on the earlier to occur of:

(a) the date that the EBB User enters into a contract for Services with the Service Provider;

(b) the date that the EBB User withdraws an FT Request or IT Request lodged by it with the Service Provider; or

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(c) the date of a notice of termination from the Service Provider (which may be issued if the EBB User breaches any of its obligations under

this Agreement).

EXECUTED as an agreement.

SIGNED for and on behalf of the)
SERVICE PROVIDER by a duly)
authorised officer in the presence of:)

.....
Signature of witness

.....
Signature of officer

.....
Name of witness

.....
Name of officer

.....
Office held

.....
Title/position of officer

SIGNED for and on behalf of the **EBB**)
USER by a duly authorised officer in)
the presence of:)

.....
Signature of witness

.....
Signature of officer

.....
Name of witness

.....
Name of officer

.....
Office held

.....
Title/position of officer

SCHEDULE 1

Rules for Use of the EBB

SCHEDULE 2

EBB User ID and Password

[This information will be confidential to the EBB User. Schedule 2 will be filed separately by the Service Provider in its records.]

REQUEST FOR SERVICE
(clauses 6, 7 and 7A)

FORM 2

1. MINIMUM INFORMATION REQUIRED FOR ALL REQUESTS

1.1 Name, ABN and Address of User:

.....
.....
.....

1.2 Contact Person:

1.3 Contact Telephone No (24 hours):

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1.4 Contact Facsimile No (24 hours):

1.5 Type of Service Requested (ie FT or IT):

1.6 Commencement Date of Contract: 1 [month] [year]

1.7 Termination Date of Contract: If FT Service - 31 December [year]

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If IT Service -

If Non-Specified Service

1.8 Requested MDQ (ie if FT Service):

1.9 Requested Primary Capacity Quantity at Delivery Point(s): (User to complete attached schedule)

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1.10 Estimated Annual Deliveries:

2. FOR COMPLETION WHERE NEW RECEIPT POINT OR NEW PRIMARY DELIVERY POINT IS REQUESTED

2.1 Maximum Daily Deliveries:

2.2 Expected Minimum Instantaneous Operating Gas Flow:

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2.3 Peak Instantaneous Gas Flow:

2.4 Required Receipt/Delivery Pressure:

2.5 Seasonal or Shutdown Period:

2.6 Anticipated Hourly Load Profile:

2.7 Site Plan (must be attached).

2.8 Pipeline Extension Required:

2.9 Pipeline or Station Access Restrictions (if any):

2.10 Land Area or Ownership Restrictions (if any):

2.11 Special Requirements (if any):

3. TO BE COMPLETED WHERE FACILITIES TO BE PROVIDED BY USER

3.1 Description and Design of Measuring Equipment (in accordance with clause 28 of Access Arrangement) (must be attached).

3.2 User Control Room Available? - Yes / No.

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3.3 User UPS Power (24V) Available?- Yes / No.

Signed for and on behalf of the User by a duly authorised officer in the presence of:

.....
Signature of Authorised Officer

.....
Signature of Witness

.....
Name of Authorised Officer

.....
Name of witness

.....
Position/Title of Authorised Officer

REQUEST FOR CREDIT AND FINANCIAL INFORMATION
(clause9.1)

FORM 3

The following information:

- (a) is provided to Epic Energy South Australia Pty Ltd (ABN 54 068 599 815) ('Service Provider'):
- (i) in connection with the provision of gas transportation services to the **User** (described below) on the Moomba to Adelaide pipeline system; and
- (ii) to enable it to assess the credit risk of the User; and

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- (b) is true and correct in all material particulars.

1. Name of User:
2. Legal Status:
3. Name(s) of Guarantor(s) (if any):
4. Name(s) and addresses of controlling shareholders:
5. Corporate organisation chart:
6. Type of transportation service and quantity:
7. Names and addresses of directors and officers:
8. Type of business:
9. Date commenced business:
10. Names and addresses of credit referees:
 - (a) Credit agency:
 - (b) Bank(s):
 - (c) Trade creditor(s):
11. Credit rating (if any):

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Attached are copies of:

12. Most recent 2 years audited financial statements; and
13. Financial statement for the year to date.

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The following representations are made:

- | | | |
|--|-----|-----|
| 14. No director or officer has, in the last 10 years been bankrupt? | yes | no* |
| 15. The User has, for the last 5 years, been in a position to pay its debts as they fall due | yes | no* |

(*if no, please give details).

The Service Provider, its financial and accounting advisers and its bankers are authorised to make enquiries of the credit referees and credit rating agency listed above.

Signature of Authorised Officer:
Name of Authorised Officer:
Position/Title:
Date:

Acknowledgement of Receipt of Complying Request for Service

(FT Service, IT Service, Non-Specified Service)

(Clauses 6.5, 7.4, 7A.4 and 10.1)

User Name: _____

Date: _____

User ID: _____

Time: _____

Date and Time Request Received	Identification No	Details

1. Your position in the queue is _____

2. The aggregate Capacity sought under Complying Requests which are ahead in the queue is _

3. Spare Capacity is available to satisfy your Request for Service.

OR Investigations are required to determine if Spare Capacity is available to satisfy your Request for Service. Those investigations will involve _____

OR No Spare Capacity is available to satisfy your Request for Service, and

(a) those aspects of your Request for Service that cannot be satisfied are _____

(b) Spare Capacity might possibly become available by _____

(c) the investigations required to be undertaken to determine the cost of developing Capacity are _____

(d) an indicative time schedule for completing the investigations is _____

(e) the costs which you will be required to meet in respect of the investigations are _____

Name: _____

Signed: _____

Contact No: _____

Rejection of Request for Service**(FT Service, IT Service, Non-Specified Service)**

(Clauses 6.4, 7.3 and 7A.3)

User Name: _____ Date: _____

User ID: _____ Time: _____

Date and Time Request Received	Identification No	Re

Name: _____

Signed: _____

Contact No: _____

**REQUEST FOR CONFIRMATION TO REMAIN IN QUEUE
(clause10.3(b))**

To (ie Prospective User):
Prospective User's Request No:
Prospective User's Identification No:
Date of this Notice:

Do you wish to remain in the queue with your Request for Service? Yes/No

NOTE: If a reply is not received by *[insert date being 14 Days after the date of this notice]* your Request for Service will lapse and it will be removed from the queue.

Notification of Removal of Prospective User from Queue**(FT Service, IT Service, Non-Specified Service)**

(Clauses 8.1(b), 8.2(c), 10.3(b) and 10.3(c))

User Name: _____ Date:

User ID: _____ Time:

Identification No: _____

Type of Service:

Reason for removal from queue:

- (a) Lapse of Request for Service (clause 8.1(b))
- (b) Lapse of Request for Service (clause 8.2(c))
- (c) Prospective User has not confirmed it wishes to remain in queue and Request for Service
- (d) Prospective User has notified Service Provider that it does not wish to proceed with its Request for Service (clause 10.3(c)).

Name: _____

Signed: _____

Contact No: _____

Notification of Retention Allowance Percentage

(FT Service, IT Service)
(Clause 17.3)

User Name: _____ Date: ____

User ID: _____ Time: ____

For day _____

Notification of Retention Allowance	RA Quantity
%	(TJ)

Name: _____

Signed: _____

Contact No: _____

Monthly Forecast for Year

(FT Service)

(Clause 18.1(b))

Forecast for the 12 Months Starting _____

User Name: _____

Dat

User ID: _____

Tim

	Forecast (TJ)											
	January	February	March	April	May	June	July	August	S			
Mainline Delivery Points												
Peterborough												
Burra												
Mintaro												
Wasleys Farm												
Virginia												
Adelaide Metro												
Dry Creek												
Torrens Island												
Osborne												
Penfield Roses												
Hi-Tech Hydroponics												
Zone Total												
Iron Triangle Delivery Points												
Port Pirie												
Port Bonython												
Whyalla Township												
Whyalla BHP												
Whyalla BHP Cogeneration												
Pacific Salt												
Zone Total												
Barossa Delivery Points												
Freeling												
Nuriootpa												
Sheoak Log												
Angaston Township												
Angaston Cement												
Angaston Riverland												
Zone Total												
Total												

Name: _____

Signed: _____

Contact No: _____

Note: Adelaide Metro Delivery Point is the sum of Elizabeth, Gepps Cross and Taperoo

Daily Forecast for Month

(FT Service)
(Clause 18.1(c))

Forecast of the quantities of Gas for the Month _____

User Name: _____ [

User ID: _____ 1

		Forecast (TJ)																					
Mainline Delivery Points		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Peterborough																							
Burra																							
Mintaro																							
Wasleys Farm																							
Virginia																							
Adelaide Metro																							
Dry Creek																							
Torrens Island																							
Osborne																							
Penfield Roses																							
Hi-Tech Hydroponics																							
Zone Total																							
Iron Triangle Delivery Points																							
Port Pirie																							
Port Bonython																							
Whyalla Township																							
Whyalla BHP																							
Whyalla BHP Cogeneration																							
Pacific Salt																							
Zone Total																							
Barossa Delivery Points																							
Freeling																							
Nuriootpa																							
Sheoak Log																							
Angaston Township																							
Angaston Cement																							
Angaston Riverland																							
Zone Total																							
Total																							

Name: _____
 Signed: _____
 Contact No: _____

Initial Delivery Nominations

(FT Service)
(Clause 18.3(b))

UserName: _____ Date: _____

User ID: _____ Time: _____

Notification for the Day _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			

Name: _____

Signed: _____

Contact No: _____

Confirmation of Initial Delivery Nominations

(FT Service)

(Clause 18.3(d))

Epic Energy acknowledges the receipt of Initial Nominations for the Day _____ User Name: _____

User ID: _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			

Name: _____

Signed: _____

Contact No: _____

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Notification of Initial Nominated Receipt and Delivery Quantities

(FT Service)

(Clause 18.3(e))

User Name: _____ Date: _____

User ID: _____ Time: _____

Notification for the Day _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangale Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			
Moomba Receipt Points			
Moomba Plant			
EAPL Interconnect			
Total Receipt Points			

Name: _____

Signed: _____

Contact No: _____

Notification of Final Nominated Receipt and Delivery Quantities

(FT Service, IT Service)

(Clauses 18.4(b) – (d) and 18.5(i) – (k))

User Name: _____

Notification of Final Nominated Quantities for the Day _____

User ID: _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			
Moomba Receipt Points			
Moomba Plant			
EAPL Interconnect			
Total Receipt Points			

Name: _____
 Signed: _____
 Contact No: _____

Request for Authorised Variation

(FT Service, IT Service)

(Clause 18.7)

User Name: _____

User ID: _____

Request for the Authorised Variation to Final Nominated Quantities for the Day _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			
Moomba Receipt Points			
Moomba Plant			
EAPL Interconnect			
Total Receipt Points			

Name: _____

Signed: _____

Contact No: _____

Response to Request for Authorised Variation (FT Service, IT Service)

(Clause 18.7)

User Name: _____
User ID: _____

Authorised Variation to Final Nominated Quantities Requested for the Day _____

Your Request has been:

- (a) approved;
- (b) partially approved;
- (c) rejected.

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Final Scheduled Quantities are as follows:

			Schedu
Mainline Delivery Points			
Peterborough			
Burra			
Mitlake			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			
Mooomba Receipt Points			
Mooomba Plant			
EAPL Interconnect			
Total Receipt Points			

Name: _____
Signed: _____
Contact No: _____

Notification of Capacity Possibly Available for IT Service

(IT Service)
 (Clause 18.5(c))

User Name: _____

User ID: _____

Notification for the Day _____

	Quantity
Mainline Delivery Points	(TJ)
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	
Pacific Salt	
Zone Total	
Barossa Delivery Points	
Fresling	
Nuriootpa	
Sheoak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Delivery Points	

Name: _____
 Signed: _____
 Contact No: _____

Notification of Capacity Available for IT Service

(IT Service)
 (Clause 18.5(d))

User Name: _____

User ID: _____

Notification for the Day _____

	Quantity
Mainline Delivery Points	(TJ)
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	

Pacific Salt	
Zone Total	
Barossa Delivery Points	
Freeling	
Nuriootpa	
Sheoak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Delivery Points	

Name: _____
Signed: _____
Contact No: _____

Initial Delivery Nominations for IT Service

(IT Service)

(Clause 18.5(e))

User Name: _____

Date

User ID: _____

Time:

Notification of Initial Nominations for IT Service for the Day _____

	Nominated Quantity
Mainline Delivery Points	(TJ)
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	
Pacific Salt	
Zone Total	
Barossa Delivery Points	
Freeling	
Nuriootpa	
Shecak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Delivery Points	

Name: _____

Signed: _____

Contact No: _____

Confirmation of Initial Delivery Nominations

(IT Service)
(Clause 18.3(f))

User Name: _____

Notification for the Day _____

User ID: _____

	Nomination (TJ)
Mainline Delivery Points	
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	
Pacific Salt	
Zone Total	
Barossa Delivery Points	
Freeling	
Nuriootpa	
Sheoak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Delivery Points	

Name: _____

Signed: _____

Contact No: _____

Notification of Initial Nominated Receipt and Delivery Quantities

(IT Service)

(Clause 18.5(g))

User Name: _____

User ID: _____

Notification for the Day

	Nomination (TJ)
Mainline Delivery Points	
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	
Pacific Salt	
Zone Total	
Barossa Delivery Points	
Freeling	
Nuriootpa	
Shenak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Delivery Points	

Name: _____

Signed: _____

Contact No: _____

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Notification of Scheduled Quantities

(FT Service, IT Service)
(Clause 18.6)

FORM 22

User Name: _____ Date: _____

User ID: _____ Time: _____

Notification of Scheduled Quantities for the Day _____

Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			
Moomba Receipt Points			
Moomba Plant			
EAPL Interconnect			
Total Receipt Points			

Name: _____

Signed: _____

Contact No _____

Notification of Zone Variation

(FT Service, IT Service)
(Clause 19.2(a))

FORM 23

User Name: _____ Date: _____

User ID: _____ Time: _____

Notification of Zone Variation for the day _____

	Metered Quantity	Nominated Quantity	
	(TJ)	(TJ)	
Mainline Delivery Points			
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total			

Name: _____

Signed: _____

Contact No: _____

Notification of Imbalance

(FT Service, IT Service)
(Clause 19.2(a))

User Name: _____

Date: _____

User ID: _____

Time: _____

Notification of Imbalance for the Day _____

	Quantity (TJ)
Mainline Delivery Points	
Peterborough	
Burra	
Mintaro	
Wasleys Farm	
Virginia	
Adelaide Metro	
Dry Creek	
Torrens Island	
Osborne	
Penfield Roses	
Hi-Tech Hydroponics	
Zone Total	
Iron Triangle Delivery Points	
Port Pirie	
Port Bonython	
Whyalla Township	
Whyalla BHP	
Whyalla BHP Cogeneration	
Pacific Salt	
Zone Total	
Barossa Delivery Points	
Freeling	
Nuriootpa	
Sheoak Log	
Angaston Township	
Angaston Cement	
Angaston Riverland	
Zone Total	
Total Deliveries	
Moomba Receipt Points	
Moomba Plant	
EAPL Interconnect	
Total Receipts	
Retention Allowance	
Imbalance = Total Receipts less Total Deliveries less Retention Allowance	
Excess Imbalance	

Name: _____

Signed: _____

Contact No: _____

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Notification of Real Time Data and Excess Imbalance (FT Service, IT Service)

(Clauses 19.4 and 19.6)

Date: _____

Time: _____

	Maximum Capacity	Total Scheduled Quantities	Volume (GJ)			Pressure at end of		
			Hourly	Cumulative	Forecast			
Mainline Delivery Points								
Peterborough								
Burra								
Mintaro								
Wasleys Farm								
Virginia								
Adelaide Metro								
Dry Creek								
Torrens Island								
Osborne								
Penfield Roses								
Hi-Tech Hydroponics								
Zone Total								
Iron Triangle Delivery Points								
Port Pirie								
Port Bonython								
Whyalla Township								
Whyalla BHP								
Whyalla BHP Cogeneration								
Pacific Salt								
Zone Total								
Barossa Delivery Points								
Freeling								
Nuriootpa								
Sheoak Log								
Angaston Township								
Angaston Cement								
Angaston Riverland								
Zone Total								
Total Delivery Points								
Moomba Receipt Points								
Moomba Plant								
EAPL Interconnection								
Total Receipt Points								
Retention Allowance								
Imbalance								
Excess Imbalance								

Notification of Curtailment

(FT Service, IT Service)

(Clause 24.2)

User Name: _____

Issue Date: _____

User ID: _____

Issue Time: _____

Effective Date: _____

Effective Time: _____

Duration of Curtailment: _____

Affected Receipt Point(s) and/or Delivery Point(s):

Reduced Quantity:

Reason(s) for the Curtailment: _____

Other Information: _____

Name: _____

Signed: _____

Contact No: _____

Notification of an OFO

(FT Service, IT Service)

(Clause 25.1)

User Name: _____

Issue Date: _____

User ID: _____

Issue Time: _____

Effective Date: _____

Effective Time: _____

Duration of OFO: _____

Names of Other Users affected by OFO:

Action required by User(s):

Reason(s) for the OFO:

Other Information:

Name: _____

Signed: _____

Contact No: _____

Notification of Marketable FT Parcel Release

(FT Service)
 (Clause 26.2(a))

Transaction Number: _____
 User Name: _____
 User ID: _____

The amount of Primary Capacity Quantity that is the subject of this Release _____

	Capacity Released	Term of Release	Condition
Mainline Delivery Points	(TJ)		
Peterborough			
Burra			
Mintaro			
Wasleys Farm			
Virginia			
Adelaide Metro			
Dry Creek			
Torrens Island			
Osborne			
Penfield Roses			
Hi-Tech Hydroponics			
Zone Total			
Iron Triangle Delivery Points			
Port Pirie			
Port Bonython			
Whyalla Township			
Whyalla BHP			
Whyalla BHP Cogeneration			
Pacific Salt			
Zone Total			
Barossa Delivery Points			
Freeling			
Nuriootpa			
Sheoak Log			
Angaston Township			
Angaston Cement			
Angaston Riverland			
Zone Total			
Total Delivery Points			

Name: _____
 Signed: _____
 Contact No: _____

Acceptance of Marketable FT Parcel Release

(FT Service)

(Clause 26.2(b))

User Name: _____

User ID: _____

	Capacity Acquired	Transaction Number		
Mainline Delivery Points	(TJ)			
Peterborough				
Burra				
Mintaro				
Wasleys Farm				
Virginia				
Adelaide Metro				
Dry Creek				
Torrens Island				
Osborne				
Penfield Roses				
Hi-Tech Hydroponics				
Zone Total				
Iron Triangle Delivery Points				
Port Pirie				
Port Bonython				
Whyalla Township				
Whyalla BHP				
Whyalla BHP Cogeneration				
Pacific Salt				
Zone Total				
Barossa Delivery Points				
Freeling				
Nuriootpa				
Sheoak Log				
Angaston Township				
Angaston Cement				
Angaston Riverland				
Zone Total				
Total Delivery Points				

Name: _____

Signed: _____

Contact No: _____

Notification of Marketable IT Parcel Release
(IT Service)
(Clause 26.3(a))

Transaction Number: _____

User Name: _____

User ID: _____

Date: _____

Time: _____

Excluded Point: _____

Capacity Released: _____

Released for FT Service? Yes/No

Released for IT Service? Yes/No

Term of Release: _____

Conditions for Recall: _____

Any other Conditions: _____

Acceptance of Marketable IT Parcel Release
(IT Service)
(Clause 26.3(b))

User Name: _____

User ID: _____

Date: _____

Time: _____

Excluded Point: _____

Capacity Acquired: _____

Transaction Number: _____

Capacity Release - Register of Marketable Parcels on Offer
 (FT Service, IT Service)
 (Clause 26.5)

The amount of Primary Capacity Quantity or Maximum Capacity that is on Offer _____

Transaction Number	Capacity	Start Date	End Date	Capacity	Start Date	End Date	Capacity						
Mainline Delivery Points													
Peterborough													
Burra													
Mintaro													
Wasleys Farm													
Virginia													
Adelaide Metro													
Dry Creek													
Torrens Island													
Osborne													
Penfield Roses													
Hi-Tech Hydroponics													
Zone Total													
Iron Triangle Delivery Points													
Port Pirie													
Port Bonython													
Whyalla Township													
Whyalla BHP													
Whyalla BHP Cogeneration													
Pacific Salt													
Zone Total													
Barossa Delivery Points													
Freeling													
Nuriootpa													
Sheoak Log													
Angaston Township													
Angaston Cement													
Angaston Riverland													
Zone Total													
Total Delivery Points													

REQUEST FOR EBB BACK-UP DATA
(FT Service, IT Service)
(clause 27.4(c))

User Name: _____ Date: _____

User ID: _____ Time: _____

Dates Requested: _____

Public Data	Proprietary Data

Name: _____

Signed: _____

Contact No: _____

Notification of Abandonment of Receipt Point or Delivery Point

(FT Service, IT Service)

(Clauses 28.1(e) and 28.2(e))

User Name: _____ Issue Date: _____

User ID: _____ Issue Time: _____

Effective Date: _____

Effective Time: _____

Point to be abandoned: _____

Reason(s) for the abandonment: _____

Other Information: _____

Name: _____

Signed: _____

Contact No: _____

Spare Capacity Notice

(FT Service)

(Clause 10.4)

Pursuant to clause 10.4(b)(i) of the Access Arrangement for the Moomba to Adelaide Pipeline System, the Service Provider of the Moomba to Adelaide Pipeline System notifies you that Spare Capacity for an FT Service has or is likely to become available. The amount of the Spare Capacity is: _____ TJ/day

This notice was published in the _____ on _____.

In accordance with clause 10.4(c) of the Access Arrangement you are invited to lodge a Complying Request for an FT Service with the Service Provider by _____ (“Open Seasons Closing Date”).

The lodgement of a Complying Request on or before the Open Season Closing Date will constitute an irrevocable offer capable of immediate acceptance by the Service Provider immediately following the Open Season Closing Date, but is able to be withdrawn at any time up to and including to the Open Season Closing Date.

The lodgement of a Complying Request after the Open Season Closing Date will not be entitled to participate in the open season and will be entered in the Developable Capacity Queue in accordance with the provisions of clause 10.3 of the Access Arrangement

You should familiarise yourself with the provisions of clause 10 of the Access Arrangement prior to lodging a Complying Request.

Issue Date: _____

Effective Time: _____

Name: _____

Signed: _____

Contact No: _____

SCHEDULE 6

2.3 Variation of Access Arrangement and Tariff Schedule

- (a) The User acknowledges and agrees:
 - (i) that the Service Provider may at any time and from time to time without first notifying, or obtaining the consent of, the User, submit to the Regulator for approval a new Access Arrangement and/or new Tariff Schedule or variations to an existing Access Arrangement and/or Tariff Schedule; and
 - (ii) that once approved by the Regulator the User will be bound by that new Access Arrangement and/or Tariff Schedule or those variations to the Access Arrangement and/or Tariff Schedule, from the date that the approval takes effect.
- (b) The Service Provider will notify the User of any new Access Arrangement and/or Tariff Schedule or any variations to an existing Access Arrangement and/or Tariff Schedule, once the Regulator's approval has been given.

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2.4 Other Items

For the purposes of the provision of FT Service pursuant to the Agreement:

- (a) the User's MDQ is the quantity set out in Item 4 of the Schedule;
- (b) the User's Primary Delivery Point(s) and Primary Capacity Quantities are as set out in Item 5 of the Schedule;
- (c) the amount of the Capital Contribution or Surcharge (if any) payable by the User for FT Service as at the date of this FT Service Contract is as set out in Item 6 of the Schedule; and
- (d) the address for service of notices in writing to the User is as set out in Item 7 of the Schedule.

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EXECUTED as an agreement.

SIGNED for and on behalf of the)
 SERVICE PROVIDER by a duly)
 authorised officer in the presence of:)

.....
Signature of witness

.....
Signature of officer

.....
Name of witness

.....
Name of officer

.....
Office held

.....
Title/position of officer

SIGNED for and on behalf of the **USER**)
by a duly authorised officer in the)
presence of:

.....
Signature of witness

.....
Signature of officer

.....
Name of witness

.....
Name of officer

.....
Office held

.....
Title/position of officer

SCHEDULE

Item 1 - Name and Address of User

Item 2 - Commencement Date

Item 3 - Termination Date

[] (or such later date as may result from the extension of the Agreement pursuant to the Access Arrangement).

Item 4 - MDQ

Item 5 - Primary Delivery Points and Primary Capacity Quantities

<i>Location of Delivery Point</i>	<i>Primary Capacity Quantity</i>

Item 6 - Capital Contribution / Surcharge

Item 7 - Address for Notices

SCHEDULE 7

IT Service Contract
(clause 43.1)

AGREEMENT dated

BETWEEN **EPIC ENERGY SOUTH AUSTRALIA PTY LTD**
(ABN 54 068 599 815) ('Service Provider')

AND **THE PERSON DESCRIBED IN ITEM 1 OF THE SCHEDULE**
(User')

RECITALS

- A. The User wishes to be provided with IT Service on the Pipeline System.
- B. The Service Provider has agreed to provide IT Service on the terms and conditions of the Agreement.

AGREEMENT

1. INTERPRETATION

1.1 Definitions

In this IT Service Contract:

- (a) unless a contrary intention appears, words defined in the Access Arrangement have the same meanings in this IT Service Contract; and

(b) '**Access Arrangement**' means the Access Arrangement for the Pipeline System submitted by the Service Provider pursuant to the Code and approved by the Regulator as varied from time to time.

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1.2 Acknowledgement of Receipt

The User acknowledges having received a copy of the Access Arrangement and a copy of the Tariff Schedule in their respective current forms as at the date of this IT Service Contract.

2. PROVISION OF IT SERVICE

2.1 Term

The Service Provider will provide IT Service to the User on the terms and conditions of the Access Arrangement from the Commencement Date (set out in Item 2 of the Schedule) to the Termination Date (set out in Item 3 of the Schedule).

2.2 Charges

The User acknowledges and agrees that it must pay the charges set out in the Tariff Schedule, in the manner and at the times set out in the Tariff Schedule, that relate to IT Service.

2.3 Variation of Access Arrangement and Tariff Schedule

- (a) The User acknowledges and agrees:
 - (i) that the Service Provider may at any time and from time to time without first notifying, or obtaining the consent of, the User, submit to the Regulator for approval a new Access Arrangement and/or new Tariff Schedule or variations to an existing Access Arrangement and/or Tariff Schedule; and
 - (ii) that once approved by the Regulator the User will be bound by that new Access Arrangement and/or Tariff Schedule or those variations to the Access Arrangement and/or Tariff Schedule, from the date that the approval takes effect.
- (b) The Service Provider will notify the User of any new Access Arrangement and/or Tariff Schedule or any variations to an existing Access Arrangement and/or Tariff Schedule, once the Regulator's approval has been given.

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2.4 Other Items

For the purposes of the provision of IT Service pursuant to the Agreement:

- (a) the amount of the Capital Contribution or Surcharge (if any) payable by the User for IT Service as at the date of this IT Service Contract is as set out in Item 4 of the Schedule; and
- (b) address for service of notices in writing to the User is as set out in Item 5 of the Schedule.

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EXECUTED as an agreement.

SIGNED for and on behalf of the)
SERVICE PROVIDER by a duly)
 authorised officer in the presence of:)

.....
 Signature of witness

.....
 Signature of officer

.....
 Name of witness

.....
 Name of officer

.....
 Office held

.....
 Title/position of officer

SIGNED for and on behalf of the **USER**)
by a duly authorised officer in the)
presence of:

.....
Signature of witness

.....
Signature of officer

.....
Name of witness

.....
Name of officer

.....
Office held

.....
Title/position of officer

SCHEDULE

Item 1 - Name and address of User

Item 2 - Commencement Date

Item 3 - Termination Date

Item 4 – Capital Contribution / Surcharge

Item 5 - Address for Notices

SCHEDULE 8

Measuring Equipment (clauses 28.1 and 28.2)

1. Measuring Equipment

'Measuring Equipment' is equipment for measuring the quantity, quality and condition of Gas at Receipt Points and Delivery Points. The equipment must include remotely controlled flow devices, must be capable of making data concerning quality, quantity and condition of Gas available for instantaneous transmission to the Service Provider's control centre, must comply with the specifications and other technical requirements published from time to time by the Service Provider and include SCADA and communications equipment and protocols compatible with the Service Provider's equipment.

2. Certification

(a) Where the Measuring Equipment is owned and operated by the Service Provider, the Service Provider will furnish certification of the accuracy and the initial calibration for the metering equipment to the User at or before the commencement of deliveries of Gas under the Agreement.

(b) Where the Measuring Equipment is owned and operated by User or a third party, the User will furnish certification of the accuracy and the initial calibration for the metering equipment to the Service Provider at or before the commencement of deliveries of Gas under the Agreement.

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3. Meter Design

(a) The Service Provider will:

(i) determine the nature, design and specifications of;

(ii) determine the configuration of and communication protocols for;

(iii) review all plans for; and

(iv) inspect the installation of,

all Measuring Equipment to be installed at a Delivery Point or a Receipt Point.

(b) No Receipt Point or Delivery Point will be connected to the Pipeline System unless it complies in all respects with the Service Provider's Specifications.

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4. Flow Devices

(a) Orifice metering systems will be constructed and installed in accordance with the provisions of American Gas Association ('AGA') Report No. 3, such that a maximum uncertainty of ∇ 0.5% of flow co-efficient is achieved.

(b) Turbine metering systems will be constructed and installed in accordance with the provisions of AGA Report No. 7, such that a

maximum uncertainty of ∇ 1% of flow co-efficient is achieved.

(c) Positive displacement metering systems will be constructed and installed in accordance with the provisions of ANSI B109-3 (1986), such that a maximum uncertainty of ∇ 1% of flow co-efficient is achieved.

(d) Ultrasonic metering systems will be constructed and installed in accordance with the provisions of AGA Report No. 9 such that the maximum uncertainty in velocity, is ∇ 0.7%.

(e) Other metering systems will be constructed and installed in accordance with established industry standards as adopted by the Service Provider.

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5. Differential Pressure for Orifice Metering

Differential pressure will be measured using microprocessor based 'smart' type transmitters, with 4-20 mA analog output signals temperature compensated to minimise the effect of inaccuracies due to ambient temperature changes. The uncertainty of transmitters will be a maximum of 0.1% or better of the calibrated range. Calibrated ranges will be selected to minimise the uncertainty of readings. The Service Provider will have the right, but not the obligation, to instal high and low pressure differential pressure transmitters based on turn down requirements of metering. If fitted, the Service Provider will ensure that they will be switched automatically by the flow computer to select the optimum operating range.

6. Pressure

Pressure will be measured using microprocessor based 'smart' type transmitters, with 4-20 mA analog output signals temperature compensated to minimise the effect of inaccuracies due to ambient temperature changes. Uncertainty of transmitters will be a maximum of ∇ 0.1% of the calibrated range. Calibrated ranges will be selected to minimise the uncertainty of readings.

7. Temperature

The temperature transmitter uncertainty will be a maximum of ∇ 0.1% for instruments at meter stations, and ∇ 0.25% elsewhere, of the calibrated range and the calibration range will be selected to minimise the uncertainty of readings.

8. Flow Computer

(a) For each meter station, a self contained proprietary type flow computer will be installed. Instantaneous values for at least the following inputs and outputs will be recorded and available for display from the flow computer or from SCADA trend data:

Inputs	Outputs
Differential pressure (high) (orifice meter)	Differential pressure (orifice meter)
Differential pressure (low) (orifice meter)	Pressure
	Temperature

Pressure	Density
Temperature	Instantaneous volumetric flow (corrected and uncorrected)
Relative density (ideal)	Cumulative volumetric flow
Relative density (real)	Instantaneous energy flow
Carbon dioxide	Cumulative energy flow
Nitrogen	Instantaneous mass flow (ultrasonic meter)
Dry Gross Heating Value (real)	Cumulative mass flow (ultrasonic meter)
Frequency (turbine meter)	Control valve position
	Gas quality

(b) The flow computer will be manually configured with input data for calculation factors, constants and Standard Conditions as well as fall back values for out of limit input signals and alarm outputs. Configuration data will be available on a local display. The flow computer input and output circuits and central processing unit will not increase the uncertainty of any measurement or calculation by more than $\nabla 0.1\%$ of the range of that measurement or calculation.

(c) At least 31 Days of hourly information will be backed up and stored on the flow computer.

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(d) Communication connections and protocol must be acceptable to the Service Provider and must be compatible with, and connected to, the Service Provider's SCADA system.

9. Energy and Relative Density

(a) The energy content of the Gas will be monitored at all Receipt Points and Delivery Points by an on-line gas chromatograph designed to take a continuous sample of Gas from the Pipeline System.

(b) A sample probe will be used to extract the sample from the Pipeline System and the dead volume between the line and the analyser will be minimised. Sample condensation will be avoided. The samples will be analysed in accordance with ASTM D1945 'Standard Method for Analysis of Natural Gas by Gas Chromatography', and the calculations for Gross Heating Value and relative density will be determined in accordance with ISO 6976 'Natural Gas - Calculation of Calorific Value, Density and Relative Density' and AGA Report No 8 'Compressibility and Supercompressibility for Natural Gas and Other Hydrocarbon Gases'.

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(c) The gas chromatograph will provide instantaneous outputs of dry Gross Heating Value in MJ/m³, real and ideal relative density, and compositions of carbon dioxide and nitrogen.

(d) The gas chromatograph will be factory tested and calibrated using a certified natural gas gravimetric standard and will perform with an accuracy of $\nabla 0.08$ MJ/m³ for Gross Heating Value and $\nabla 0.003$ for relative density. The gas chromatograph will include the facility for recalibrating itself automatically against a certified calibration gas at

least once per day.

10. **Pulsation Damping**

The User must ensure that pulsation in the Gas stream delivered at the Receipt Point does not interfere with the operation or accuracy of the metering equipment.

SCHEDULE 9

Measurement at Receipt and Delivery Points (clause 29)

1. Volumetric Measurement

(a) Volumetric measurement in cubic meters per hour (m³/hr) will be calculated by a flow computer from flow meter signals, associated instruments and density and composition signals from an on-line gas chromatograph. The volumetric flow rate will be continuously recorded and integrated.

(b) All measurements, calculations and procedures used in determining volume, except for the correction for the deviation from the Ideal Gas Law, will be made in accordance with the instructions contained in:

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(i) American Gas Association ('AGA') Report No 3 for the Orifice Plate Metering Systems;

(ii) AGA Report No 7 for Turbine Metering;

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(iii) ANSI B109-3 for Positive Displacement (PD) Metering;

(iv) AGA Report No 9 for Ultra Sonic Metering; and

(v) relevant industry standards and such other standards as may be specified by the Service Provider for any other metering system,

together with all presently existing supplements and appendices to those reports or any revisions of them acceptable to the Parties.

(c) Those instructions will be converted where necessary for compliance with Australian Standard AS1000 'The International System of Units (SI) and its Application', the Commonwealth *National Measurement Act 1960* and regulations under that Act and the Australian Gas Association publication 'Metric Units and Conversion Factors for use in the Australian Gas Industry' or any revision of those publications acceptable to the Parties.

(d) The correction for deviation from the Ideal Gas Law will be determined from the data contained in AGA Report No 8, or any revision of that report acceptable to the Parties. The compositional data used in these calculations will be primarily derived from the on-line gas chromatograph.

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2. Energy Management

The energy flow rate will be calculated by the flow computer in GJs per hour (GJ/hr) from the product of Gross Heating Value and the volumetric flow, all at the Standard Conditions. The heating value will be continuously derived from the same on-line gas chromatograph used for determining the relative density and composition used in the volumetric flow calculation. The energy flow rate will be recorded and continuously integrated.

3. Other Measurement

The temperature and pressure will be measured and recorded, so that the readings are representative of the conditions prevailing at the upstream face of

each orifice plate, each turbine meter and each positive displacement meter or other meters.

4. **Pressure**

Pressure meters and transmitters are to measure gauge pressure. Calculations using gauge pressures are to incorporate local barometric pressure effects.

5. **Calibration Inspection and Testing**

(a) **Scheduled Tests**

The Service Provider will carry out at Monthly intervals (or such longer period as may be agreed by the Parties) Validation Tests of the metering equipment in accordance with the procedures set out in this clause 5. The Service Provider will give at least 14 Days notice of the time and date of such tests and will supply a list of items to be tested to the User. If the User fails to witness such tests after the required notification is given, the test results will nevertheless be deemed to be acceptable. Upon request, the representatives of the User at such tests will be supplied with copies of the field data and calculations following such tests, and the User will be supplied with a full set of test results.

(b) **Unscheduled Tests**

If metering equipment is out of service or needs repair, the User will be invited to attend the investigation, repair and retest provided no delays are incurred which could jeopardize the integrity of the metering equipment, or in the Service Provider's judgment, would adversely affect the Service Provider's ability to meet any of its obligations.

(c) **Test Results**

The results of such tests will be deemed to be correct if corroborated by the next scheduled monthly test. If such test results are not corroborated by the routine monthly test, those test results will be ignored and the correction procedures set out below will be implemented.

(d) **Correction Procedure**

If at any time, any of the metering equipment is found to be unserviceable or registering inaccurately, it will be adjusted immediately to its specification. The previous reading of such metering equipment will be corrected for any period of inaccuracy which is definitely known or agreed upon, provided that the period for such correction will not extend beyond the date of the last previous Validation Test. Measurement during the correction period will be determined by the Service Provider on the basis of the best data available, using the first of the following methods which, when considered in the following order, is feasible:

(i) recordings by any other measuring equipment acceptable to the Service Provider and the User; or

(ii) trend data recorded by the Service Provider or the User, where this data can be proven to represent an accurate estimate of the actual measurement; or

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(iii) by making the appropriate correction if the deviation from the accurate reading is ascertainable by calibration test or mathematical calculation; or

(iv) by estimation acceptable to the Service Provider and the User based upon receipts or deliveries under similar conditions during a period when the metering equipment was registering accurately.

6. Calibration Equipment and Procedures

Calibration equipment will have measurement accuracy at least 4 times better than the metering equipment which it will be used to calibrate. Calibration equipment will be provided with NATA endorsed certification of its accuracy, traceable to national standards. The appropriate certificates will be available for inspection during business hours at the offices of the Service Provider. Calibration procedures and frequencies or changes thereto will be approved by the User, which approval must not be unreasonably withheld.

7. Additional Tests

The User will have the right at any time in its discretion to require the Service Provider to carry out tests in addition to the scheduled and unscheduled tests referred to in clauses 5(a) and 5(b). The User will reimburse the Service Provider for the cost of the additional tests unless it is shown from the results of those tests that the equipment being tested is not operating within the permissible limits of tolerance.

8. Inspection of Equipment Records

The User will be permitted to:

(a) have access to the relevant measuring and testing equipment at all reasonable times for inspection purposes,

(b) be present during testing of the quality and quantity of Gas, and

(c) be present when measuring or testing equipment is cleaned, installed, repaired, inspected, calibrated or adjusted.

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The Service Provider will give reasonable notice to the User prior to undertaking these activities, and will make any changes to the activities reasonably required by the User for the purposes of this Schedule. To the extent such changes would result in significant and unreasonable additional cost, the Service Provider and the User will negotiate in good faith to determine how such changes are to be handled.

