

YALLOURN ENERGY

SAFETY HEALTH ENVIRONMENT COMMUNITY REPORT

2004

DATA

Employees by Type and Location

	Power Station		Mine		Melbourne		Sydney		Alliance Partners	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
Yallourn Energy – Full Time	236	215	14	13	31	23	2	2		
Yallourn Energy – Part Time	1	1	0		0		0		2	
Female (%)	7%	7.9%	0%		32%	34.8%	0%		5%	3.9%
Female	16	17	0		10	8	0		11	15
Estate Services	15	32								32
Silcar Power Station (1 Part Time)	49	63								63
ABB (1 Part Time)	34	24								24
RTL Mine Ops			97	141						141
Silcar Mine			48	51						51
Morwell River Diversion			102	69						69

Lost Time Injuries

Year	Yallourn Energy LTI
1996/1997	5
1997/1998	5
1998/1999	3
1999/2000	6
2000/2001	15
2001/2002	5
2002	4
2003	5
2004	3

LTI – Lost Time Injury

Yallourn Energy employees only except for post 2002 which includes Alliance Partners

Total Lost Time Injury Frequency Rate

Year	Yallourn Energy
1997/1998	4.3
1998/1999	2.6
1999/2000	5.5
2000/2001	14.3
2001/2002	4.8
2002	3
2003	3.39
2004	1.91

Number of serious injuries (injuries resulting in a person being unable to return to work on their next shift) causing lost time per million hours worked (total exposed hours).

Yallourn Energy employees only except for post 2002 which includes Alliance Partners

Coal Mined and Used

Performance Indicator	2001	2002	2002 Perf Ind	2003	2003 Perf Ind	2004	2004 Perf Ind
Total Coal Mined (Mt)	15.71	17.23	17.32	17.35	17.2	17.0	17.28
Coal used by Energy Brix Australia (Mt)	0.4	0.2	NA	0.3	NA	NA	NA
Coal Used by Power Station (Mt)	15.31	17.03	NA	17.05	NA	17.0	17.28

Electricity Generated, Sent Out and Used Onsite

Performance Indicator	2001	2002	2002 Perf Ind	2003	2003 Perf Ind	2004	2004 Perf Ind
Electricity generated (GWh)	10140	11340	10900	11357	11280	11402	11740
Electricity Sent out (GWh)	9206	10360	9960	10350	10300	10372	10742
In House Electricity Consumption (GWh)	940	980	NA	1010	NA	1030	998

Total Water Consumption

Water Consumption	2001	2002	2002 (Bulk Water Entitlement)	2003	2003 (Bulk Water Entitlement)	2004	2004 (Bulk Water Entitlement)
Volume Intake (ML/Yr)	30419	30832	36500	29963	36500	34386	36500
Volume Out - Wastewater (ML/Yr)	17068	15190	18250* EPA (Wastewater Target)	17808	18250* EPA (Wastewater Target)	16237	18250* EPA (Wastewater Target)

* Morwell River only

EPA Licence limit volume of wastewater is based on the licence limit of 50 ML/day for 365 days/year.

Total Water Consumed per Gigawatt Hour Generated and Sent Out

Water Consumption	2001	2002	2002 Target	2003	2003 Perf Indicator	ESAA Industry Ave 02	2004	2004 Perf Indicator	ESAA Industry Ave 03/04
Total Volume (ML/GWh generated)		2.72		2.64			3.02	2.8	
Net Volume Consumed (ML/GWh generated)	1.32	1.38		1.07	1.6		1.59	NA	NA
Net Volume Consumed (ML/GWh sent out)	1.45	1.51	1.83	1.17	1.77	1.11	1.75	NA	1.40

Wastewater Median Salinity

	96/97	97/98	98/99	99/00	00/01	2001	2002	2003	2004	Performance Indicator – for all years
Median Salinity (mg/L)*	285	390	394	318	318	330	365	383	434	450* (EPA)
Number of licence breaches	1	0	3	0	3	0	0	0	0	0

*Morwell River Only

Saline Ash Wastewater Discharge

	96/97	97/98	98/99	99/00	00/01	2001	2002	2003	2004
Saline ash wastewater discharge (ML)	1584	1561	1778	1468	1797	1020	1704	1699	1733

2001 data July to December only

Actual Land Rehabilitated Compared to Plan

Performance Indicators	2000/2001	2000/2001 Perf Ind	2002	2002 Perf Ind	2003	2003 Perf Ind	2004	2004 Perf Ind
Area rehabilitated (ha)	5	4	40	34	41	30	20	11.5

Topsoil Stockpiling

Performance Indicators	2000/2001	2000/2001 Perf Ind	2002	2002 Perf Ind	2003	2003 Perf Ind	2004	2004 Perf Ind
Volume Stockpiled (m ³)	121358	NA	175506	150,000	150610	98750	67391	150,000

Greenhouse Gas Emissions

Greenhouse Gas	2001	NEMMCO Indus Ave	2002	NEMMCO Indus Ave	2003	NEMMCO Indus Ave	2003 Perf Indic	2004	NEMMCO Indus Ave	2004 Perf Indic
Total emissions (kt CO ₂)	13100		14670		14610		14626	14560		NA
Total Emissions Index (tCO ₂ /Mwh sent out)	1.422		1.416		1.412		1.420	1.404		1.420
Total Emissions Index (t CO ₂ /GWh sent out)	1422	1020	1416	1030	1412	1050	1420	1404	1040	1420

Sulphur Dioxide Emissions to Air – Power Station

Performance Indicator	2001	EPA Target	2002	EPA Target	2003	EPA Target	ESAA Indus Ave 02	2004	EPA Target	ESAA Indus Ave 03/04
Sulphur dioxide (kg/annum)	14,670,000		16,000,000		16,700,000			18,059,570	NA	NA
Sulphur dioxide (t/GWh sent out)	1.59	4.87	1.55	4.76	1.62	4.74	2.96	1.74	4.76	3.13

Note: Power Station only

Oxides of Nitrogen Emissions to Air – Power Station

Performance Indicator	2001	EPA Target	2002	EPA Target	2003	EPA Target	ESAA Indus Ave 2002	2004	EPA Target	ESAA Indus Ave 2003/04
Oxides of nitrogen (kg/annum)	10,580,000		11,850,000		11,940,000			12,863,000	NA	NA
Oxides of Nitrogen (t/GWh sent out)	1.15	2.42	1.14	2.37	1.15	2.37	2.27	1.24	2.36	2.43

Note: Power Station only

Carbon Monoxide Emissions to Air – Power Station

Performance Indicator	2001	EPA Target	2002	EPA Target	2003	EPA Target	2004	EPA Target
CO (kg/annum)	9,000,000		14,000,000		6,600,000		10,051,752	NA
CO (t/GWh sent out)	0.98	6.51	1.34	6.37	0.64	6.35	0.97	6.36

Note: Power Station Only

Note: EPA Licence is expressed in a station mass rate of emission in g/min. These tables have been derived using the operating hours and emission mass rate tests to derive an annual emission.

Particulate Emissions (Total and <10µm) to air - Power Station

Performance Indicator	2001	2002	2003	esaa Industry Average 2002	2004	esaa Industry Average 2003/04
Particulate Emissions tonnes	4174	4976	5668		5254	NA
Particulate Emissions (t/ GWh generated)	0.41	0.44	0.50		0.46	NA
Particulate Emissions (t/GWh sent out)	0.45	0.48	0.55		0.51	NA
Particulates (<10µm) (t/ GWh sent out)	0.22	0.23	0.26	0.43	0.25	0.45

Note: The particulates (<10µm fraction) is not a direct measurement. It is calculated as a percentage of total dust using a factor derived from testing conducted in 2001.

Particulate Emissions Concentration to air - Power Station

Performance Indicator	2001	2002	2003	EPA Licence Target	2003 Perf Indicator	2004	EPA Licence Target	2004 Perf Indicator
Particulate Concentration (g/m ³)	0.091	0.096	0.108	0.22	0.10	0.100	0.22	0.10

Ash Disposal Volume and Rate

Performance Indicator	2000/01	2002	2003	2004
Volume disposed (m ³)	310,000	332,500	300,450	282,000
Volume disposed (m ³ /GWh of electricity generated)	30.57	29.32	26.46	24.73
Volume disposed (m ³ /GWh of electricity sent out)	33.67	32.09	29.02	27.18

Recycled Wastes / Wastes deposited to onsite landfill / Wastes deposited to offsite landfill

Treatment	Material	2001	2002	2003	2004
Recycled	Metals (ferrous) (tonnes)	114	199	364	284
Disposed offsite and then recycled	Waste Oil (KL)	60.8	95.7	182.9	302.7
Disposed offsite and then recycled	Empty 205 L drums	449	790	851	735
Disposed offsite and then recycled	Empty 20L drums				32
Disposed offsite and then recycled	Waste Grease (kg)				4662
Waste Deposited to Onsite Landfill	Hard rubbish (m ³)	91	279	931	362
Waste Deposited to Onsite Landfill	Asbestos (m ³)	229	293	242.5	317
Waste Deposited to Onsite Landfill	Synthetic Mineral Fibres (m ³)	134	165	264	164
Waste Deposited to Onsite Landfill	Boiler Ash Volume (m3)	310,000	332,500	300,450	282,000
Disposed offsite	Fluorotubes (kg)	1570	2083	2652	1,911
Disposed offsite	Paint/solvent (L)				131
Disposed offsite and then recycled	Waste Rags (kg)				6600
Disposed offsite and then recycled	Waste Absorbent, rags, filters (kg)				11200
Disposed offsite and then recycled	Contaminated soil (kg)				800

Complaints by Type – Including Alliance Partners

Type of Complaint		2001	2002	2003	2004
Noise	EBAC Noise	1	0	0	0
Noise	Power Station Noise Levels	20	1	7	13
Noise	Mine Noise Levels	2	2	1	2
Dust	Power Station Dust Emissions	1	7	6	5
Dust	Mine Dust Emission	2	2	1	1
Other	SWOP line leak	1	1	0	0
Other	Yallourn North Action Group	1	0	0	0
Other	Leased Land/Land Access	1	0	0	1
	Total	27	11	14	22

Financial Data

Category	2003 (\$ Million) *	2004 (\$ Million) *
External donations, non-employee education contributions, scholarships, health, etc.	0.3	0.2

Licence Breaches

Category	96/97	97/98	98/99	99/00	00/01	2001	2002	2003	2004	Total
Power Station Stack Emissions – Dust	13 (6.1 hrs)	11 (12.5 hrs)	5 (3 hrs)	6 (3 hrs)	7 (3.5 hrs)	4 (2 hrs)	3 (1.5 hrs)	4 (2.0 hrs)	1 (0.5 hrs)	54 (34.1 hrs)
Power Station Stack Emissions – CO	0	0	0	0	0	0	0	2 (2.0 hrs)	0	2 (2.0 hrs)
Wastewater discharges	1	0	3	0	3	0	0	0	0	7
Ash System	0	0	0	0	0	0	1	2	1	4
Total No of Licence Exceedances	14	11	8	6	10	4	4	8	2	67

2001 reflects the 6 month period July to December 2001

EDP Availability

Unit	2001	2002	2003	2004
Generation Losses due to EDPs (MWh)	11,923	9,346	17,616	28,224

2001 is for the 6 month period July to December 2001