



# WWF AUSTRALIA AUDIT OF AUSTRALIA'S LARGEST POWER GENERATION COMPANIES 2003

This is the first annual audit of the major players in Australia's electricity generation sector.

























































The first table profiles the major fossil fuel power companies, lists them in order of their total annual CO<sub>2</sub> (greenhouse gas) pollution and indicates how they score under WWF's Energy Performance Index (quantity of renewable investments and greenhouse efficiency of powerstations).

The second table details the information determining a company's ranking under WWF's Energy Performance Index and lists the companies in order of how they rank.

Ranking by annual CO <sub>2</sub> (greenhouse gas) emissions per power generator			
The company	Their power stations	Annual greenhouse pollution (million tonnes)	Energy Performance Index (Top score = 6 stars)
<b>Macquarie Generation</b> Owned by the NSW Government	Bayswater NSW Liddell NSW	<b>23.6</b>	★☆☆☆☆
<b>Delta Electricity</b> Owned by the NSW Government	Mt. Piper NSW Vales Point NSW Wallerang C NSW Munmorah NSW	<b>19.4</b>	★☆☆☆☆
<b>Loy Yang Power</b> Currently owned by: 49.6% - CMS Energy (USA) 25.4% - NRG Energy 25% - Horizon Energy Investments May be purchased by AGL and Commonwealth Bank	Loy Yang A VIC	<b>17.3</b>	★☆☆☆☆
<b>International Power UK</b>	Hazelwood VIC 92% - International Power 8% - Commonwealth Bank Pelican Point SA	<b>16.1</b>	★☆☆☆☆
<b>NRG</b> (includes NRG Energy and NRG Flinders) Owned by Xcel Energy, USA	Northern SA - 100% Collinsville QLD - 100% Loy Yang A VIC - 25% Gladstone QLD - 37.5%	<b>13.6</b>	Did not respond
<b>Yallourn Energy</b> 92% - China Light and Power International	Yallourn W VIC	<b>13.4</b>	★☆☆☆☆
<b>Eraring Energy</b> Owned by the NSW Government	Eraring NSW	<b>12.4</b>	★☆☆☆☆
<b>Stanwell Corporation</b> Owned by the Queensland Government	Stanwell QLD	<b>10.1</b>	★★★★★
<b>CS Energy</b> Owned by the Queensland Government	Callide A QLD Callide B QLD Swanbank A,B QLD Callide C (50% ownership) QLD	<b>9.9</b>	★☆☆☆☆
<b>Edison Mission Energy USA</b>	Loy Yang B VIC	<b>9.7</b>	☆☆☆☆☆
<b>Western Power</b> Owned by the WA Government	Muja WA Collie WA Kwinana WA	<b>9.4</b>	★★★★★
<b>Tarong Energy</b> Owned by the Queensland Government	Tarong QLD Tarong North QLD 50% - QLD Government 50% - Tokyo Electric Power Corporation and Mitsui & Co.	<b>9.4</b> (based on Tarong power station only, Tarong North still coming on line)	★★★★★
<b>Comalco Ltd</b>	Gladstone QLD 41% ownership	<b>4.0</b>	Did not respond
<b>InterGen</b> Jointly owned by Shell Generating (Holding) B.V. and Bechtel Enterprises Energy B.V.)	Millmerran QLD 54% ownership Callide C QLD 50% ownership	<b>1.5</b> (based on 50% Callide C only)	Did not respond
<b>TXU USA</b>	Torrens Island SA	<b>1.41</b>	★★★★★

**Notes:**

- Company's power stations** - This scorecard lists only fossil fuel baseload power stations that produce over 200 mega-watts of electricity per year.
- Annual greenhouse pollution** - is the total number of million tonnes of carbon dioxide produced by the listed power stations. Figures have been obtained either from company sources or calculations based on publicly available data. Figures are based on 2001 or 2000/01 data, unless the company has provided more up-to-date figures. Where a company owns a percentage of a power station the CO<sub>2</sub> emissions have been calculated taking the level of ownership into account.
- Energy Performance Index rating** - stars were awarded for the average level of greenhouse emissions per unit of energy and for gigawatt hours of renewable energy generation that the company is responsible for (see next table for information). For more details on the breakdown of the star ranking contact WWF Australia.

Energy Performance Index ranking per power generator							
The company (Top score = 6 stars)	Amount of greenhouse pollution for electricity generated Kg of CO <sub>2</sub> per kilowatt hour of electricity sent out (the larger the number, the more pollution for each unit of electricity)	Amount of energy from renewable energy investments (Gigawatt hours)	Stance on the big issues (Top score = 4 ticks)				
			Kyoto	Coal	Trading	Efficiency	
TXU 	0.54	94					
Stanwell Corporation 	1.02	340					
Western Power 	0.96	157.4					
Tarong Energy 	0.916	100					
CS Energy 	1.04	Did not respond	-	-	-	-	
Delta Electricity 	0.91	1.4					
Macquarie Generation 	0.95	12.5					
Eraring Energy 	0.96	38.6					
Yallourn Energy 	1.44	Request to withhold exact figure					
International Power 	1.21	No current projects					
Loy Yang Power 	1.18	No current projects					
Edison Mission Energy 	1.33	No current projects					
InterGen	1.0	Did not respond	-	-	-	-	
NRG	1.15	Did not respond	-	-	-	-	
Comalco Ltd	1.02	Did not respond	-	-	-	-	

#### Energy Performance Index notes

- Efficiency of power stations** - is the average of the greenhouse intensities of the individual power stations, weighted by their respective energy generations.
- Renewable energy investments** - companies were asked to provide information on all renewable energy investments based on current gigawatt hours of generation. All currently operating and under construction renewable energy investments are eligible. WWF notes that several power companies have projects that have been approved but are not yet under construction. These are TXU (contracts for renewable energy of 244GWh in 2004), International Power (wind farm with approximately 130 - 160 GWh) and Delta Electricity (biomass generation of 500 GWh). WWF hope to include these projects in the 2004 Audit if these projects have begun construction.
- Company's stance on the big issues** - one tick is given for each time the company supports the following four policy initiatives. 1. Ratification of the Kyoto Protocol 2. The company will not make new investments in coal 3. The company supports a national mandatory emissions trading scheme 4. The company supports reform of the National Electricity Market laws to improve energy efficiency.

Source: WWF Australia T: 1800 032 551 [www.wwf.org.au](http://www.wwf.org.au)