





**EVOLUTIONARY THINKING** 

FOR

**GENERATIONS AHEAD** 

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SCOPE AND PURPOSE OF THE ANNUAL REPORT

The Annual Report is written to provide information to CS Energy Limited's (CS Energy's) stakeholders including Ministerial shareholders, customers, community, partners, unions, industry, employees, suppliers, environmental groups and the media. This is the eleventh Annual Report for CS Energy. The Annual Report is also available online at www.csenergy.com.au.



Where you see this symbol, more information is available

# Performance Against Measures 2007/2008 Chief Executive's Review 02 PORTFOLIO Callide Power Station 03 GROWTH

Q: Where will the energy come from?

A: Evolutionary thinking.

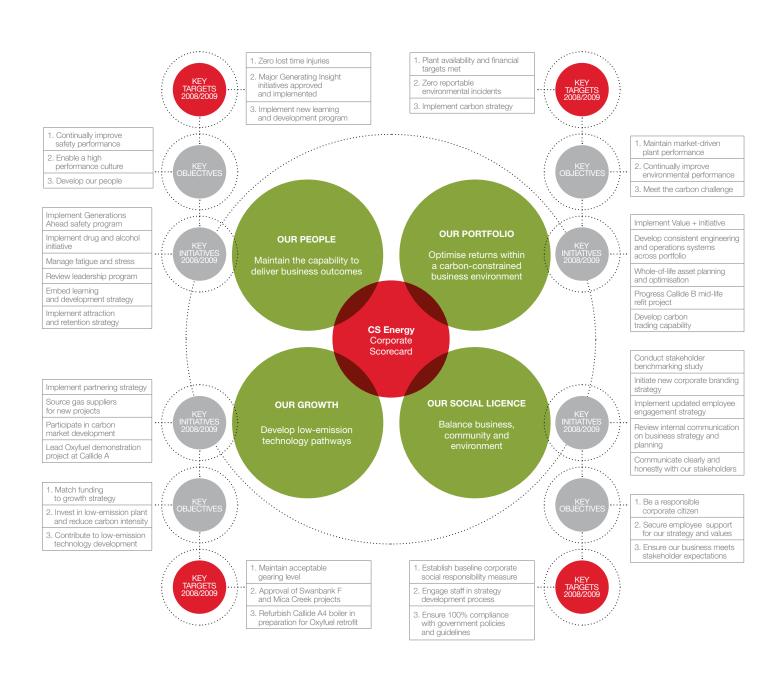
Addressing climate change is a huge challenge. Together, we need to find answers.

CS Energy, as a major provider of electricity, is contributing by investing in innovative technology, developing diverse fuel sources and increasing efficiency to provide reliable power for our customers.

We are part of the evolution of our industry, exploring new ways to meet the energy needs of generations ahead.

Our corporate scorecard guides us, providing the framework for achieving our goals and measuring our progress.

#### CS Energy Corporate Scorecard



#### Our Carbon Strategy

CS Energy is operating in a complex environment. Demand for electricity is increasing yet we know that the continued consumption of fossil fuel-fired electricity is having a detrimental effect on our environment. Alternative technologies are in development but, at the moment, none is sufficiently advanced to make a major contribution to base load generation.

As industry and governments across the world work to find solutions that address both economic and environmental needs, CS Energy is engaged in a parallel quest to provide reliable power, add value for our shareholders and minimise the impact of our operations.

During 2008/2009, the economic framework for this will become clearer as the structure of the federal government's emissions trading scheme is revealed. In anticipation of this new regime, CS Energy has appointed a Carbon Strategy Manager to co-ordinate the Company's readiness program for carbon trading.

This, however, is only one aspect of our strategy. We are investing in the development of Oxyfuel technology, a low-emission coal technology that may reduce the carbon emissions of coal-fired electricity to near zero. This project is focused on examining the potential to retrofit this technology to existing plant, helping to minimise the lead time and financial burden associated with reducing the carbon impact of Australia's electricity generation. Our progress to date on the Callide Oxyfuel Project is reported on page 44.

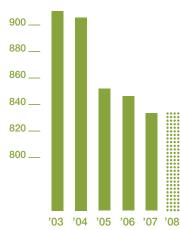
We are also participating in the deployment of solar thermal technology. This is a logical extension of our expertise in thermal generation and another technology that could be retrofitted to existing plants to supplement coal-fired boilers.

These investments are complemented by work to develop a comprehensive carbon offset program, one that not only offsets the impact of our operations, but also supports meaningful projects that will make a long-term difference. The first stage is underway, with \$2 million set aside in the Kogan Creek Power Project for tree planting.

Fuel switching remains central to our business strategy. We continue to stimulate new developments in the coal seam methane industry and develop new, large-scale gas generation plant. Investment in Metgasco's coal seam methane development at Casino, in northern New South Wales, is intended to fuel CS Energy's next major gas plant, the Swanbank F development. There is more information about our gas developments on pages 46 and 47 of this report.

These developments build on a history of applying the latest technology and investing to change our portfolio profile from 100 per cent coal-firing, to a mix of coal, gas and landfill gas-firing. Since 1997, we have added more than 1,000 megawatts of new plant to our portfolio and increased our generation by 73 per cent, whilst reducing our carbon intensity by 17 per cent.







#### About CS Energy

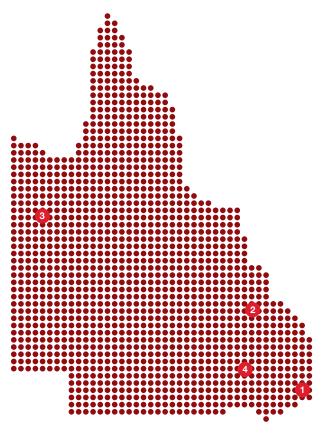
CS Energy's mission is to develop the Company into a large, low-cost, multi-fuel generator.

Our long-term vision is to be the leading generator in the Australian energy market. To achieve this, we are developing the skills of our people, providing the technology and systems to support their work and fostering a corporate environment founded on six key values: safety, commercial approach, environmental responsibility, teamwork and mutual trust, innovation and creativity, and integrity.



#### **Location Key**

- Swanbank Power Station, Ipswich
- 2 Callide Power Station, Biloela
- Mica Creek Power Station, Mount Isa
- Kogan Creek Power Station, Chinchilla



PLANT		FUEL	TOTAL CAPACITY (MW)	CS ENERGY OWNED CAPACITY (MW)
IN OPERATION				
Swanbank	Swanbank B	Coal-fired	480	480
	Swanbank E	Gas-fired <sup>1</sup>	385	385
Callide	Callide A <sup>2</sup>	Coal-fired	120	120
	Callide B	Coal-fired	700	700
	Callide C	Coal-fired	900	450
Mica Creek	Mica Creek A (Units 1,2,3,4)	Gas-fired	132	132
	Mica Creek A (Units 5,6,7)	Gas-fired <sup>1</sup>	103	103
	Mica Creek B	Gas-fired	35	35
	Mica Creek C	Gas-fired <sup>1</sup>	55	55
Kogan Creek	Kogan Creek A	Coal-fired	750	750
TOTAL CAPACITY			3,660	3,210

<sup>1</sup> Combined cycle 2 Callide A is in storage for future use in the Callide Oxyfuel Project

#### Who we are

CS Energy is a Queensland Government-owned electricity generator with more than 580 employees, four power stations and a generating capacity of 3,210 megawatts.

#### What we do

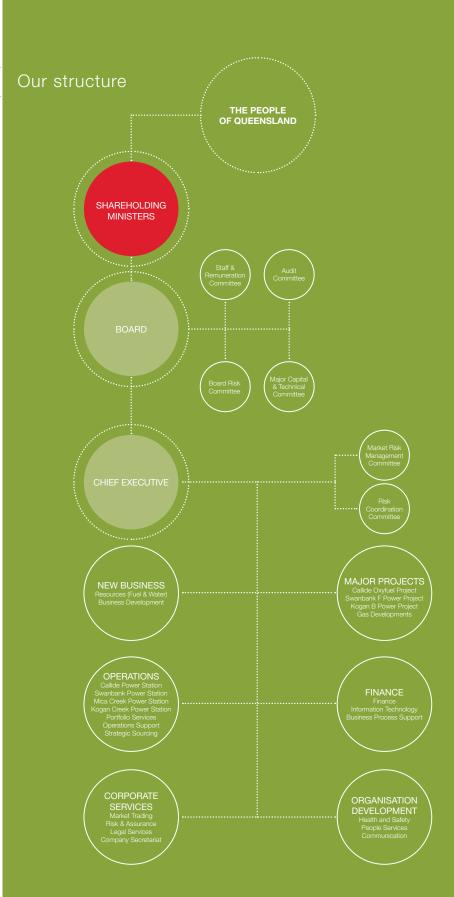
We meet approximately 30 per cent of Queensland's electricity demand, using a mix of coal, natural gas, coal seam methane and landfill gas.

#### Our stakeholders

CS Energy has many stakeholders. These include all individuals and groups who are affected by, or who have an interest in, our operations, including:

- current and future employees
- contractors
- customers
- the local communities in which we operate
- unions
- suppliers
- special interest groups
- relevant authorities
- current and prospective business partners.

Through our shareholding Ministers we are ultimately responsible to the people of Queensland.



### Highlights 2007/2008

## 2007/2008 was a busy year for us, with the following milestones achieved in our key focus areas of people, portfolio, growth and social licence.

#### PEOPLE

Appointed David Brown as CS Energy Chief Executive, John James as General Manager Portfolio Services, Gary Campbell as General Manager Operations and Don Woodrow as Carbon Strategy Manager.

Opened a Learning and Development Centre to co-ordinate training and development of staff across the Company.

Commenced applying the findings of an employee survey to target improvement through leadership, role clarity and teamwork initiatives at both individual and group levels.

#### PORTFOLIO

Opened the \$1.2 billion Kogan Creek A Power Station and mine, adding 750 megawatts to the National Electricity Market.

Started using recycled water from the Western Corridor Recycled Water Project at Swanbank Power Station, allowing the station to continue operation despite drought conditions.

Generated 17,237 gigawatt hours of electricity and achieved electricity sales of \$740 million.

Commenced mid-life refit of Callide B, and spent \$47 million on overhauls across Swanbank, Callide and Mica Creek power stations.

Returned a \$59 million net profit after tax for 2007/2008, up \$15.7 million from the previous year.

#### GROWTH

Secured \$50 million in funding for the Callide Oxyfuel Project from the Australian Federal Government's Low Emissions Technology Demonstration Fund, and a further \$140 million from public and private sector interests.

Officially signed the Callide Oxyfuel Project's six-member Joint Venture Management Agreement.

Started planning Swanbank F, a highly efficient, combined cycle gas-fired power station to be built on the old Swanbank A site.

Established gas reserves in the Metgasco Joint Venture development of 227 PJ in 2P reserves.

#### SOCIAL LICENCE

Developed Generosity, a company-wide Workplace Giving program.

Furthered our partnership with Opera Queensland, sponsoring Moving Opera! workshops for high schools in Ipswich and Mount Isa.

Celebrated World Environment Day through an internal awareness campaign including a photography competition that will provide material for CS Energy's 2009 corporate calendar

Lost time injury frequency rate						
5.1 05/06	3.36 06/07	<b>3.3</b> 07/08				
Employee numbers						
<b>530</b> 05/06	559 06/07	<b>588</b> 07/08				
Leadership principles training						
Leadership	principles train	ing				
Leadership 460 05/06	principles train 66 06/07	77 07/08				
460 05/06	66	<b>77</b> 07/08				

Total energy sent out (GWh)							
13,110 05/06	13,996 06/07	<b>15,426</b> 07/08					
Reliability (%)							
93.4 05/06	95.5 06/07	<b>91.8</b> 07/08					
Greenhouse intensity (tCO <sub>2</sub> e/GWh)							
851 05/06	<b>829</b> 06/07	<b>834.4</b> 07/08					
Significant environmental incidents							
0	0	0					
O	U	U					

Profit after tax (\$000)						
<b>56,468</b> 05/06	43,300 06/07	<b>59,007</b> 07/08				
Return on productive assets (%)						
7.3 05/06	3.7 06/07	<b>5.3</b> 07/08				
Qld average pool price (\$/MWh)						
28.12	52.14	52.34				
05/06	06/07	07/08				
Gearing (%)						
39.3	51.8 <sup>1</sup>	47.8 <sup>1</sup>				
05/06	06/07	07/08				
1Cooxing for 0000/0007 and 0007/0000 has been						

<sup>1</sup>Gearing for 2006/2007 and 2007/2008 has been adjusted to reflect the impact of mark to market on financial instruments.

## Performance Against Measures 2007/2008

CS Energy has a 10-year strategic plan and every year we set targets that support this plan. We use these targets to measure our progress.

SAFETY	Finish rollout of high-visibility and flame-retardant clothing	_/
	Complete drug and alcohol program development	····>
	Introduce fatigue management plan	······
	Rollout consistent confined space procedure at all sites	······································
	Implement safety awards	·>
STRUCTURE	Establish Portfolio Services as a separate division	
	Implement outcomes of support services review	·
LEADERSHIP	Evaluate the leadership program implementation	
	Respond to evaluation findings and develop next phase	·
FRAINING	Conduct second intake of frontline management training for supervisors	
	Review technical training across the company to ensure greater consistency and identify areas for improvement	
SECURING FOUNDATIO	ns	
MAINTENANCE	Conduct overhauls at Callide B, Swanbank E and Mica Creek	
	Implement Kogan Creek Asset Management Strategy	······································
AVAILABILITY	Continue high availability of Callide C	X
	Receive recycled water at Swanbank	
	Achieve planned availability from Kogan Creek in first year of operation	
FUEL MANAGEMENT	Fund further gas appraisal work at Metgasco's field to secure 2P reserves	
	Investigate other potential coal and gas supplies	>
WATER	Incorporate air cooling in new and existing projects where feasible	>
	Use recycled water at Swanbank	
FOR GENERATIONS AHE	EAD	
FINANCIAL STRENGTH	Continue to examine finance options to support future projects	>
ENVIRONMENT	Execute joint venture agreement between Callide Oxyfuel Project Partners	~
	Commence construction on Callide Oxyfuel Project site	✓
	Finalise geosequestration site	·
	Maintain ISO14001 certification at all certified sites	
COMMUNITY	Manage Kogan Creek's transition from construction to operations	~
	Communicate and consult on new and existing projects	>
	Develop a staff Workplace Giving program, Generosity	······
GROWTH	Secure sufficient power purchase agreements and competitively priced gas to progress Mica Creek expansion	>
	Review market conditions on other projects	·>

#### Chairman's Review

Stephen Lonie B Com, MBA, CA, F Fin, FIMCA, FAICD

The 2007/2008 financial year was another challenging period for CS Energy, both in achieving a safe, reliable and efficient operating environment as well as addressing the many strategic challenges that the industry faces in securing and maintaining access to key inputs such as fuel, water and skilled people. In addition, the Company was assessing the emerging implications of the Federal Government's greenhouse gas policies, which will have a direct impact on the Company's business in 2010.

The Company's strategic direction is captured in the following four key goals:

- To become a large scale merchant generator in the National Electricity Market;
- To build, own and operate a portfolio of lowemission, multi-fuel, cost competitive, reliable plant;
- To focus on leading technology to reduce carbon emissions; and
- To achieve a carbon footprint with an emissions intensity of less than 400kg CO<sub>2</sub>/MWh by 2030.

These goals set the agenda for both the performance of our existing assets and business and for growing the business in a carbon constrained world, whilst meeting the challenging emission target set for the business.

The growth plans for the portfolio focus on three main technologies and energy sources:

- Low-emission coal technologies;
- Gas generation; and
- Selected renewable technologies.

Low-emission coal – build on the Callide Oxyfuel low-emission coal demonstration project. During the year, the Company successfully managed the financial close for its Oxyfuel Project, which is a key initiative to underwrite the Company's response

to the emerging world of carbon taxes and related greenhouse gas policies. This project is now in progress and represents a significant component of the Company's carbon strategy.

The experience of the Callide Oxyfuel project can be applied to achieve commercial scale deployment of low-emission coal technologies by retrofitting to existing coal stations, as well as being applied to new build as and when the technology becomes economic.

Gas generation – building on the success of Swanbank E, a further high-efficiency gas-fired combined-cycle plant is planned at the Swanbank site. In addition, the Mica Creek expansion is under discussion but requires

commitment from the Mount Isa customers in order to proceed.

Renewable technologies – building on the existing capabilities of building, owning and operating thermal based plant by assessing renewable technologies which also utilise thermal generation techniques. Evaluation of both geothermal and solar thermal opportunities is planned for 2008/2009.

As well as focussing on growth opportunities, the Company will continue to improve the performance of its current portfolio of plant – safe, reliable and efficient are the Company's key operational drivers - to ensure that the Company can justify its appetite for further development through operating its current portfolio of assets well. The Company is aware of its challenges in improving the performance of its current portfolio and has initiated plans to address these challenges.

Planning for new plant at Swanbank (gas) and Kogan Creek (coal) is continuing, with the understanding that any new plant must address the Australian Government's emerging greenhouse gas policies.

The agenda for CS Energy is large and complex. However, our people have the capability to successfully meet these challenges

...safe, reliable and efficient are the Company's key operational drivers...

and continue to deliver outstanding results for the Company, often under difficult circumstances. The Board is aware of and appreciates these efforts across the whole organisation.

It is also a time of significant demand for talented people, particularly in the regional areas in which CS Energy operates, and the Company will continue to look at feasible ways to make working for CS Energy a rewarding and enjoyable proposition.

CS Energy operates in a complex environment, with many stakeholders, the most important being our shareholding Ministers, the Honourable Geoff Wilson, MP, Minister for Mines and Energy and the Honourable Andrew Fraser, MP, Treasurer, and I would like to acknowledge their guidance and support for this Company's endeavours over the past year.

The 2007/2008 financial year was also a year of transition for the management team and, on behalf of the Board, I would like to acknowledge Tony Andersen's contribution as Acting Chief Executive during the first half of this financial year. After a long history in the industry, and over ten years as part of the CS Energy Executive Team, Tony Andersen retired from the Company in July 2008. We thank him for his dedication and support over many years, and wish him well for the future. David Brown was appointed Chief Executive on 24 December 2007 and has already contributed constructively to the Company's operations and future strategies.

On 30 September 2008, two long serving Directors, Tony White and Tim Crommelin, will retire and I would like to recognise their significant input to this Company's development over the past ten years and thank them for their efforts and commitment as two outstanding, industrious and strong team members.

Finally, I would also like to thank all my fellow Directors for their efforts and support this year. It continues to be a challenging time, both in growing the Company and responding to industry changes, but I am confident that, with sustained effort, CS Energy will meet its challenges, and take advantage of the opportunities ahead.

A new decade, a new era for CS Energy

Hepler Lone' STEPHEN LONIE Chairman

#### Chief Executive's Review

David Brown C.Eng BSc (Hons)

set for 2007/2008.

It is a very exciting time to be working in the energy sector. The pace of change in the energy industry is rapid. CS Energy continues to evolve and grow by being at the forefront of developments and tackling the many challenges in the industry.

The new corporate scorecard, introduced this year, outlines four priority areas for the business - people, portfolio performance, growth and social licence. It will provide the framework for continued growth and evolution within the context of a changing business environment. While CS Energy transitions to the new-look scorecard in the coming year, it will continue to report its performance against the measures How CS Energy

responds to the I am pleased to report many significant carbon challenge will achievements this year. After four years of have the greatest construction, the Company officially opened impact on our day-tothe Kogan Creek Power Station and mine in day business in the November 2007. The state-of-the-art coal fired power station sets new benchmarks in coming years. operational and environmental performance. The single unit station's environmental profile is one of the best in the country and because the plant is dry-cooled, it will use one tenth of the water of a similar sized wet-cooled station.

Swanbank Power Station started using recycled water from the Western Corridor Recycled Water Pipeline, which allowed continued operations through the drought conditions in south east Queensland.

After 20 years of operation, Callide B Power Station embarked on a major mid-life overhaul program, to ensure it continues to

operate reliably and consistently for another 20 years. Callide C reliability continues to be challenged by boiler performance issues. The outstanding dispute with the boiler manufacturer has now been settled which allows a comprehensive plan to be implemented to progressively improve the reliability of the Callide C units.

How CS Energy responds to the carbon challenge will have the greatest impact on our day-to-day business in the coming years. In May 2008, the Company appointed a Carbon Strategy

> Manager to co-ordinate the many carbon related activities across the business and to oversee our preparation for an emissions trading scheme. Continued

commitment to better environmental management and involvement in researching and developing cleaner energy technologies, carbon abatement initiatives and clean coal demonstration are key priorities for the Company. In August 2008, the major contracts for the multi-million dollar Callide Oxyfuel Project will be finalised. This project demonstrates a clear commitment to developing this

technology and our view that it can contribute to low impact electricity production for future generations.

The Company's safety record is improving. However I feel strongly that the Company must continue to raise the bar with regard to safety awareness and performance. CS Energy considers any injury unacceptable and remains committed to achieving a workplace free of injury.

Like many organisations, CS Energy faces tough competition to attract and retain the best people. This year, a number of programs that focus on driving stronger leadership and



succession management across the organisation will be put in place. CS Energy will be successful in the future due to the capability and commitment of its staff and by having sufficient skilled resources to meet the challenges ahead.

I feel privileged to be working with such a dynamic and enthusiastic team at CS Energy. I thank each and every one of them for their efforts in the last year.

In particular, I would like to thank Tony Andersen for guiding the organisation through the first half of the financial year. Tony's leadership ensured CS Energy stayed focused and provided a smooth transition for the executive during a potentially unsettling time.

I would also like to welcome John James as General Manager Portfolio Services and Gary Campbell as General Manager Operations to the Executive Team. I look forward to working with them, and the rest of the team and Board, as CS Energy moves ahead.

The future will see CS Energy continue to prosper by:

- investing in its existing plant and people to achieve safe, reliable and efficient operation;
- investing in low-emission technology; and
- further developing the high level of knowledge and skills of its people.

Evolving industry, evolutionary thinking



DAVID BROWN

## **Corporate Performance**

#### Financial Performance

#### Progress 2007/2008

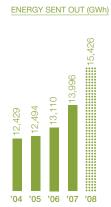
Produced record sent out generation of 15,426 gigawatt hours.

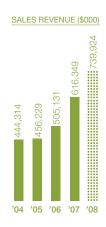
Achieved record electricity sales of \$739.9 million.

Returned a 35.3 per cent increase in net profit.

Financial Highlights						
		07/08	06/07	05/06	04/05	03/04
Profit after tax (PAT)	\$000	59,007	43,300	56,468	40,680	30,397
Return on productive assets (ROPA	A) %	5.3	3.7	7.3	5.2	5.3
Gearing	%	47.8 <sup>1</sup>	51.8¹	39.3	40.9	30.6
Assets	\$M	2,896	3,262	2,121	1,734	1,620
Time-weighted average pool price	\$/MWh	52.34	52.14	28.12	28.99	28.19
Green energy products	\$000	26,034	34,266	23,024	11,133	1,799
Total electricity sales	\$000	739,924	616,349	505,131	456,229	444,314
Costs (excl interest)	\$000	699,781	562,648	434,011	398,529	394,860
Dividends payable	\$000	47,206	34,640	40,170	29,151	28,877
Capital investment in power station	ns \$000	280,248	373,163	490,795	248,696	46,655

<sup>1</sup>Gearing for 2006/2007 and 2007/2008 has been adjusted to reflect the impact of mark to market on financial instruments.





CS Energy's profit for the year was \$59 million, up \$15.7 million on 2006/2007.

Profit was affected by an increase in finance costs of \$58.9 million, reflecting changes to the accounting treatment of both interest payments on the Kogan Creek Power Project following its commissioning, and finance costs associated with provisions for future obligations on other operations.

Earnings before interest and tax show an even stronger result, with the Company returning \$135.6 million compared to \$66.9 million for the 2006/2007 financial year.

CS Energy achieved record generation for the second consecutive year in 2007/2008. Over 15,000 gigawatt hours of electricity were sent out from its portfolio of plant, reflecting the introduction of the 750 megawatt Kogan Creek Power Station to its operations, which resulted in a 20 per cent increase in revenue from electricity sales.

This increased capacity was supplemented by improved results from hedging activities as the ongoing drought increased contract prices during the first half of the financial year.

Consistent with this increased revenue, net cash inflow provided by operating activities increased by \$93 million or 36.7 per cent. A portion of this amount was used to fund completion of the construction of Kogan Creek Power Station, as well as the Company's capital overhaul program.

CS Energy's operating expenses also rose during the year, up \$137.1 million or 24.4 per cent, reflecting the addition of Kogan Creek Power Station to the portfolio and a number of other significant events, particularly the ongoing costs of managing the boiler issues at Callide C.

Following a decision by the Queensland Government, the Collinsville Power Purchase Agreement, formerly held by the state-owned entity, Enertrade, was transferred to CS Energy in August 2007. Onerous obligations associated with this contract, in particular the fixed capacity charge payable under the agreement, significantly increased the Company's expenses during 2007/2008.

The Company's accounts also contain initial recognition of an onerous contract provision associated with the new water supply contract for Swanbank Power Station, established by the Queensland Government under the *Water Act 2000*.

A one-off \$31.6 million impairment write down in the value of Swanbank B is also reflected in the 2007/2008 results.

#### Market Performance

CS Energy receives its revenue from selling electricity and its environmental products into the National Electricity Market (NEM) and to off-grid customers. Our NEM-connected power stations are Swanbank and Callide and the new Kogan Creek. Mica Creek Power Station near Mount Isa is the main source of electricity for the remote north west Queensland region, which is not connected to the national grid.

#### **Performance in NEM**

CS Energy sells electricity into the NEM through the spot market, where prices are calculated every five minutes and settled half hourly, and trades in the contract market where it enters into financial contracts that lock in a fixed price for electricity.

Time-weighted average pool price for the 2007/2008 financial year was \$52.34 per megawatt hour, almost unchanged from the previous year's average of \$52.14 per megawatt hour. Both years reflect the ongoing impact of the drought in NEM-connected states.

In September 2007, Swanbank was connected to the Western Corridor Recycled Water Pipeline, and started receiving up to 27 megalitres a day, which increased Swanbank's availability.

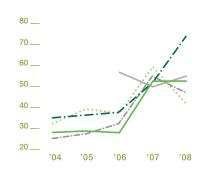
Ownership of the Collinsville Power Purchase Agreement (PPA) was transferred to CS Energy in August 2007, following the dissolution of Enertrade. The Collinsville Power Station is owned and operated by Transfield Services Infrastructure Fund and our Market Operations team has responsibility for the administration and operation of the PPA with Transfield Services.

Commissioning of Kogan Creek in 2007 saw an additional 750 megawatts of generation added to the NEM, which contributed revenue to CS Energy prior to the station's commissioning on 7 December 2007.

With almost a quarter of its portfolio gas-fired, CS Energy continued to support the Queensland Government's 13 per cent Gas Scheme, which requires retailers to source at least 13 per cent of their electricity from gas-fired generation and has resulted in a supplementary revenue source for CS Energy.

This year, our Swanbank B Power Station was accredited under the New South Wales Greenhouse Gas Abatement Certificate Scheme, allowing us to generate marketable carbon offset certificates from the co-firing of landfill gas with black coal at Swanbank's Unit B3.

#### TIME WEIGHTED AVERAGE POOL PRICE BY REGION







Mica Creek Power Station recorded system reliability of 99.67 per cent during the 2007/2008 financial year, down slightly on the previous year, reflecting the fact that some of the plant is almost 50 years old. For more information on our plans to replace this plant see page 46 of this Annual Report.

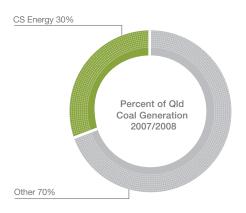
Overhaul work at Mica Creek C Station during the year resulted in a performance gain of seven megawatts additional capacity for the station.

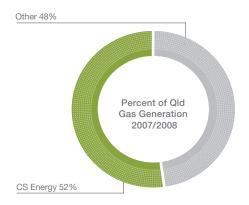
#### Looking forward 2008/2009

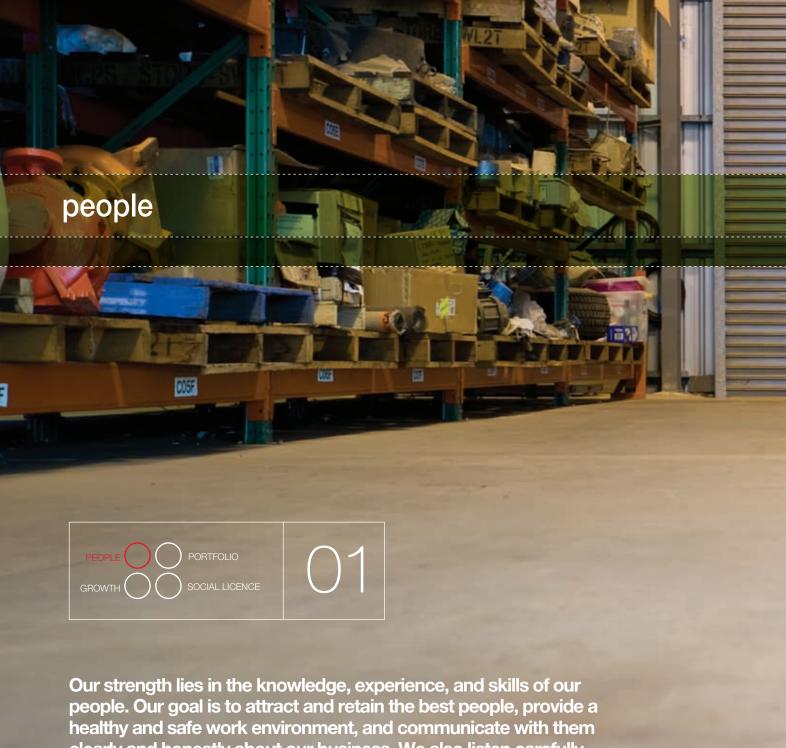
Manage the financial impact of the new SEQ Water Grid system on our operations.

Work with new retailers to encourage further competition and increase marketplace liquidity.

Participate in discussions regarding the formation of the Carbon Pollution Reduction Scheme, due to be implemented in 2010.







clearly and honestly about our business. We also listen carefully to them, and act appropriately on what they tell us.



## **People**

#### Our People

#### Progress 2007/2008

Completed human resources, training and safety systems at Kogan Creek.

Conducted our employee survey, Generating Insight.

Commenced negotiations for Enterprise Bargaining Agreements at Callide and Mica Creek.

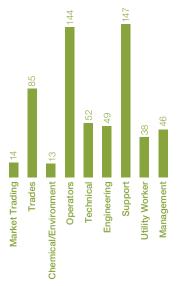
Undertook an Industrial Relations Working Party review of our industrial relations consultation processes. CS Energy is Queensland's largest electricity generator, with more than 580 employees at five sites across the state – Swanbank, Callide, Mica Creek and Kogan Creek power stations, and Brisbane office.

#### Our workforce profile

At 30 June 2008, we employed 588 people in a variety of occupations and professions, including engineering and sciences, technical and trades, contract administration, project management, legal, workplace health and safety, finance, information technology, procurement and human resources.

During the year we recruited 88 permanent employees, and accepted 72 resignations. Our total staff turnover for the year was 12.8 per cent, a slight increase on the previous year's figure of just under 10 per cent.

#### OCCUPATION PROFILE OF OUR WORKFORCE



#### Valuing diversity

We strive to keep our workplace free from all forms of discrimination and harassment. We expect that all people are treated with respect and all employees value the diversity within our teams.

This year we completed a new five-year Equal Employment Opportunity (EEO) Plan, with actions and initiatives to support a positive workplace culture. All employees will be trained in this plan. Our EEO policy can be found on our website 29.

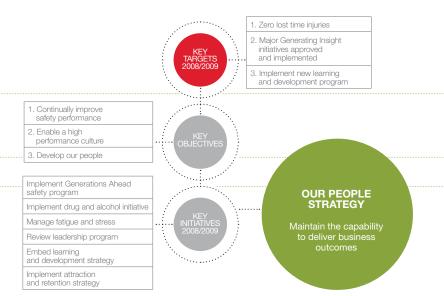
Just over 12 per cent of our workforce is female, with the number of women in technical and trade roles increasing each year. Across our operations we employ a diverse range of men and women of varying ages including a number of people from non-English speaking backgrounds, Aboriginal or Torres Strait Islanders and people with disabilities.

#### **Employee engagement**

This year, we revised our employee survey, embarking on a new program, Generating Insight. A total of 74 per cent of employees responded, up from 55 per cent for the last survey.

We benchmarked our results against other Australian organisations, which revealed that work is needed in the areas of teamwork, role clarity and supportive leadership. We exceeded the national benchmark in our approach to safety.

These survey results will be used in the coming year to implement specific improvements. The first stage is to work individually with all CS Energy leaders – 82 individuals – to meet our commitment of improving our approach to leadership.



We also conducted a comprehensive review of our Leadership Principles program during the year, using focus groups at each site to identify effective aspects of the program, as well as areas for improvement.

The outcomes of these reviews will be implemented in 2008/2009.

#### Industrial relations

A total of 63 per cent of our employees are employed under Enterprise Bargaining Agreements (EBAs), with the remaining employed under Alternative Individual Agreements (AIAs). We have separate EBAs for each site, and this year we started negotiations with relevant unions to develop new agreements at the Mica Creek and Callide power stations. Both the EBAs and the AlAs at Mica Creek and Callide will expire in August 2008. In September 2008 we will start negotiations to renew Swanbank's EBA, which expires in March 2009. We are currently developing a negotiating framework for the Corporate EBA, which will expire in June 2009. The current Kogan Creek EBA is in place until October 2010.

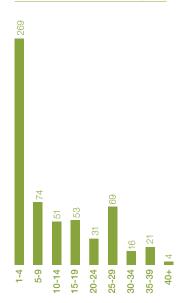
We established an Industrial Relations Working Party during the year, to help us improve our industrial relationships and processes. This group comprises CS Energy and union representatives and is supported by an external facilitator. A final report and recommendations from the group' will be presented in 2008/2009.

NUMBER OF FEMALES IN OUR WORKFORCE								
YEAR ENDED	TOTAL EMPLOYEES	NO. OF FEMALES	NO. OF FEMALES TECHNICAL OR TRA ROL	DE	% FEMALES IN OUR WORKFORCE			
2008	558	72		10	12.24			
2007	559	65		9	11.62			
2006	530	61		10	11.50			
2005	467	59		9	12.63			
2004	467	55		10	11.77			
EEO NUMBERS								
EEO <sup>⋆</sup> NO. OF EMPLOYEES AT 30 JUNE 2								
Females 72								
Non-English speaking background 26								
People with a disability 18								
Aboriginal and Torres Strait Islander (ATSI) 7								
TOTAL 123								

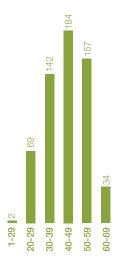
<sup>\*</sup>Some people chose not to respond to EEO survey questions: non-English speaking background (83 non-respondents to this question); disability (91); ATSI (92)

#### Our People continued

#### EMPLOYEE LENGTH OF SERVICE (YEARS)



#### AGE PROFILE OF OUR WORKFORCE (YEARS)



#### Attraction and retention

We continue to face the challenge of maintaining a skilled workforce in an increasingly competitive employment market. With more than 50 per cent of our staff in remote areas, we compete for skilled people against major operations in the resource sector.

This year we compiled a detailed report of our workforce skills and demographics to assist with workforce planning. We also continued to look for opportunities to strengthen our remote area assistance initiatives, such as housing benefits, travel support and study support for school and tertiary-aged children.

Ensuring we have the right people in the right jobs is a key element of ongoing employee commitment and loyalty. With this in mind, we undertook a major review of our recruitment and selection practices to ensure the most effective approach across the portfolio. This has given us an e-recruitment tool, and a more structured process for managers and supervisors during recruitment, including standard tools, templates and interview guides.

#### **Functional review**

This year we continued a functional review to assess the delivery of internal support services across the portfolio. A review of the delivery of engineering services in 2006/2007 revealed that the most effective means to deliver these expert services was through a centralised team, accessible to all sites. This year we rolled out a similar model for Information Technology, Procurement, Finance and Human Resources. This has streamlined processes and has the potential to open up new career paths for staff previously limited to site-based activity.

#### Looking forward 2008/2009

Implement Generating Insight action plans.

Consolidate Functional Review outcomes.

Implement EEO management plan.

Negotiate new Enterprise Agreements at Mica Creek, Callide and Swanbank.

Implement Industrial Relations Working Party findings.

#### Learning and Development

#### Progress 2007/2008

Opened the Learning and Development Centre.

Commenced second year of Power Generation
Skills Development Program and Operator Training Program.

Finished first round of the Supervisor Development Program in 2007 and started second program in 2008.

Developed new Emerging Supervisor Program.

Started review of succession planning strategy.

Making sure our people have the right skills for the right jobs is fundamental to our business strategy. It is also important for our long term growth that our industry has enough people, with the right skills, for the future.

This year, we implemented a Learning and Development Strategy, and opened a new Learning and Development Centre at Swanbank Power Station.

The cornerstone of our skills development strategy, the centre provides a focal point for learning and development initiatives for the whole company in an operational setting. It also enables coordinated management of all our training, training records and employee qualifications, ensuring a consistent approach to shaping employee development plans and recording compliance training. We have also invested in an e-learning tool to develop and manage online learning.

#### **Professional development**

CS Energy joined forces with Tarong Energy, Stanwell Corporation and three Queensland universities to develop an industry-specific post-graduate program to build skills among engineers and paraprofessionals. Launched in early 2007, the Power Generation Skills Development Program is offered through the University of Queensland, Queensland University of Technology and Central Queensland University. The course is targeted, providing industry with an increased pool of staff, and participants with professional development opportunities. The course entered its second year in 2007/2008 and, as at 30 June 2008, we had six staff enrolled.

We were also part of an industry-wide Power Station Operator Training Program during 2007 providing qualified Operators for Kogan Creek and Callide power stations. These employees were one of the first groups in Queensland to achieve a Certificate IV in Generation (Operations) on the completion of their studies and on-the-job requirements.

Our first Supervisor Development
Program was also completed in 2007,
which saw 22 staff graduate with a
Certificate IV in Business (Frontline
Management). A second program was
launched in early 2008, with a further
26 CS Energy Supervisors currently
completing this course. In response to
the demand for places in this current
program, an 'Emerging Supervisor
Program' has been developed for staff
who are placed in 'step-up' or acting
supervisor roles, or who aspire to
become supervisors in the future.

#### Developing the next generation

This year we undertook a review of our Graduate Professional Development Program, which has expanded from two to 13 participants and embraced five new disciplines since 2005. Following the review, a graduate working group was established, a graduate website was developed to encourage peer support among participants, and workshops will now be held annually to allow graduates to share their experiences.

Most of our apprentices and trainees are employed through group training organisations. At 30 June 2008, we had 36 group training apprentices and trainees, and eight employees who are completing in-house apprenticeships/traineeships as part of their development plans. This year we completed a



Last year I started in a new senior position and found myself responsible for supervising people for the first time. In the past I've had both good and bad managers, but I guess I really didn't understand the specific skills required for managing people until I started CS Energy's Supervisor Development Program.

There were all sorts of supervisors from across all power stations in the training, which was specifically tailored to what we do at CS Energy, so we could share experiences and learn from each other. While our jobs may be different, we found that we shared a lot of the same challenges and faced similar situations when it came to managing teams.

I now feel I've gained the confidence, tools and day-to-day skills I need to be an effective supervisor and a strong leader in the Company.

CAMERON SMITH - MICA CREEK POWER STATION



#### Learning and Development continued

review of apprentice and trainee management across all sites to ensure we are supporting their development consistently across the company.

One of our Swanbank apprentices, Adam Jolliffe, was awarded Apprentice of the Year at the Ipswich City Employee awards in May 2008. The awards, organised by the Ipswich City Council, honour the 'front-line' of the region's workforce.

Twelve graduate and fourth year apprentices completed a five-day Outward Bound Program in August 2007 to develop their leadership, teamwork and problem-solving skills. The program was initiated to build the capabilities of the next generation of CS Energy leaders and strengthen participants' transition from training or study to the workplace.

#### **Development opportunities**

Providing development opportunities for our people is a core component of our people management philosophy. This year we piloted a new system, Manager-one-Removed (MoR), which provides an opportunity for staff to discuss their career paths with their supervisor's manager. The MoR system gives employees access to personalised, long-term career development and is a catalyst for the development and maintenance of trusting relationships in line with our Leadership Principles. The MoR system will commence formally across the business during 2008/2009.

With 32 per cent of our workforce aged 50 years and above, effective workforce planning is essential to our long-term business strategy. We are currently revising our succession planning to address work volume, identify positions and associated skills critical to our business, and evaluate the current breadth and depth of internal capability for progression to these critical positions.

#### Looking forward 2008/2009

Merge all training records from sites.

Start online training program.

Commence Managerone-Removed system.

Develop revised workforce planning system.

#### Health and Safety

#### Progress 2007/2008

Finalised rollout of high visibility and flame retardant clothing at all sites.

Completed fatigue management training.

Worked with energy GOCs, unions and sites to develop a combined drug and alcohol policy and procedure.

Finished rollout of our behaviourbased safety training program, SAFEmap. We aim for a workplace free of occupational illness and injury, and a culture of responsibility toward health and safety. Our Safe Move awareness program encapsulates this objective, using the most basic principle of safety – to think before acting.

Our Occupational Health and Safety Management System (OHSMS) provides a uniform approach to safety at all sites and is designed to encourage continuous improvement. The system includes corporate policies, procedures, audits and health and safety manuals. Information about this system, as well as our safety policies and procedures, can be found on our website 29.

A key element of our OHSMS is the Permit to Work system, which is used to coordinate and control the isolation of live electrical plant at all power stations. Regular site inspections, job observations and toolbox talks encourage staff to take responsibility for health and safety in their area. Our Permit to Work procedures are available at the suppliers section of our website 29.

#### Safety performance

We improved our safety performance this year, recording six lost time injuries (down from ten in the previous year), with a corresponding lost time injury frequency rate of 3.3. These figures include staff and contractors at CS Energy's five sites. We continue to aim for zero lost time injuries.

Mica Creek Power Station reached a safety milestone of one year without a lost time injury in March 2008, but the team at this site also boasts the impressive achievement of recording just one lost time injury in five years. Callide Power Station also reached 18 months without a contractor lost time injury.

This year we completed the development of the Chairman's Safety Awards, designed to encourage innovative approaches to safety in the workplace. The awards will include quarterly Safe Move Awards and an annual Generations Ahead Award for the most outstanding safety initiative. We plan to roll out the awards program early in the 2008/2009 year.

#### **Emergency planning**

This year we joined forces with Queensland Fire and Rescue, Queensland Ambulance and Queensland Police for a joint crisis exercise at Swanbank Power Station. Codenamed Operation Boombox, it successfully tested our Emergency Response Team and Crisis Team capabilities, as well as our coordination with emergency services.

#### Fit for Duty

Our Fit for Duty Policy ensures everyone in our workplace can perform their duties without posing unacceptable risks to the health and safety of themselves or others. A copy of our Fit for Duty Policy is on our website .

During 2007/2008, representatives from CS Energy, Tarong Energy and Stanwell Corporation in conjunction with state union officials and site delegates, developed a combined policy and procedure for the management of alcohol, other drugs and fatigue in the workplace.

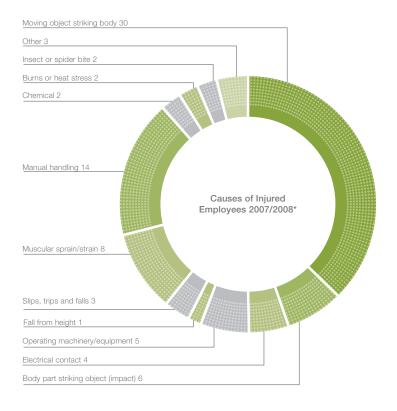
In 2008/2009, we will progress our Alcohol and Other Drugs Policy, which includes an education program for staff and a three-month introductory testing phase.

Fatigue management was also a focus this year, with training in a new procedure designed to help staff and contractors manage fatigue levels, particularly during overhauls and shift work, conducted at all sites. The training included lifestyle tips for employees, as well as outlining the company's responsibility to ensure shift rosters and the workplace environment do not cause undue fatigue.

#### DETAILS OF THE SIX LOST TIME INJURIES FOR 2007/2008



#### Health and Safety continued



\*Causes of injured employees includes all lost time injuries, injuries and medical treatments for staff and contractors at our five sites.

#### Safety training

This year we finished the rollout of our new behaviour-based safety training program, SAFEmap. Behaviour-based safety training aims to enhance our safety management systems by focusing on human factors and developing a stronger workplace safety culture. Specifically, the training improves participants' risk identification and response skills, and the training was mandatory for every operations-based employee to complete.

CS Energy takes electrical safety very seriously. We initiated an internal investigation following a rise in electrical safety incidents this year. One major outcome of this investigation was the purchase of four ground-penetrating radars, which will help to locate underground cables. We also continued our electrical safety training program to achieve a more consistent approach at all sites.

Other safety training carried out in 2007/2008 included:

- Incident investigation training
- Safe Move inspection and observation training
- Asbestos management training
- Emergency Response Team training at the Queensland Fire and Rescue training centre.

#### Employee health and wellbeing

We believe the physical and mental health and wellbeing of our people is paramount. We offer a range of programs to promote a healthy lifestyle and to help staff balance their work and personal lives.

Our Employee Assistance Program provides free, independent counselling to staff and their families on work or personal issues in a private atmosphere. This year, our employees sought assistance 763 times through the program, compared with 582 in the previous year. We will continue with regular promotion of the service to ensure a high level of awareness throughout the organisation.

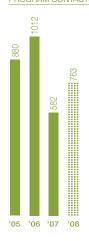
We continue to provide pre-employment medicals for all new power station staff, which have proven successful in identifying current and developing health problems and formulating proactive management plans. Free health assessments are also offered for staff over 50, and we provide free influenza vaccinations to all staff.

A major weight-loss campaign was initiated at Callide, with participants working with the onsite nurse to determine a weight loss strategy, and supporting each other in healthier lifestyle choices and exercise. In 2007, we tested 199 people and found 80 per cent were overweight; in 2008 we tested 169 people, and just 38 per cent were overweight. This weight-loss effort has also seen a dramatic reduction in the number of staff with an unhealthy cholesterol level, falling from 70 last year to 27 this year.

#### NUMBER OF LOST TIME INJURIES



#### NUMBER OF EMPLOYEE ASSISTANCE PROGRAM CONTACTS



#### Looking forward 2008/2009

Launch Chairman's Safety Awards.

Finalise Emergency Response training

Focus on reducing workplace stress as part of our Fit for Duty program.

numbering, signs and symbols across all sites.





## 02

## portfolio

Portfolio Performance

1. Plant availability and financial 2. Zero reportable environmental incidents 3. Implement carbon strategy Maintain market-driven plant performance 2. Continually improve environmental performance 3. Meet the carbon challenge Implement Value + initiative OUR PORTFOLIO STRATEGY Optimise returns within a carbon-constrained business environment Develop consistent engineering and operations systems across portfolio Whole-of-life asset planning and optimisation Progress Callide B mid-life refit project Develop carbon trading capability

#### Progress 2007/2008

Opened the \$1.2 billion, 750 megawatt Kogan Creek A Power Station.

Spent more than \$47 million on overhauls across the portfolio.

Started using recycled water at Swanbank Power Station.

Conducted the first stage of a mid-life refurbishment of Callide B Power Station.

Achieved one year without a lost time injury at Mica Creek Power Station.

Our portfolio recorded a reliability of 91.8 per cent and sent out 15,426 gigawatt hours in 2007/2008. Our reliability has decreased 3.7 per cent from last year due to ongoing technical issues with both Callide C boilers, water restrictions at Swanbank B and the early replacement of some gas turbine blades at Swanbank E.

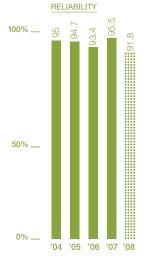
The introduction of the new supercritical, dry-cooled Kogan Creek A Power Station in December 2007 boosted our capacity by a further 750 megawatts and improved our ability to provide electricity to Queensland during the peak summer demand period.

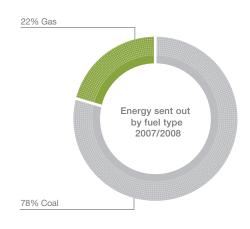
Although water restrictions affected Swanbank Power Station's operation, the diversity of CS Energy plant enabled our Market Operations team to take advantage of stronger spot and contract prices during the drought affected period.

The Portfolio Services team coordinates the long-term asset management of CS Energy's portfolio. Based in Brisbane, the team has expertise in engineering, environment, chemistry and asset and overhaul management and works in partnership with technical staff at sites. This year the team continued the rollout of a new overhaul process, to achieve consistency and efficiency across sites, and coordinated the first stages of refurbishment at Callide B.

In line with our business strategy, we initiated a new project this year, Value +. Established to examine cost efficiencies, methodologies and processes across the portfolio, Value + will help secure our future by maximizing value across the portfolio to maintain our competitiveness.

The Value + project team will work closely with teams across the whole business to develop a clear perspective on how we currently do business and what improvements can be made. This year we started reviewing our business processes, and in the coming year we plan to identify and scope the key projects arising from this review.





#### Kogan Creek Power Station









On 27 November 2007 the new \$1.2 billion Kogan Creek A Power Station and mine was officially opened by the Queensland Premier, the Honourable Anna Bligh MP and the Minister for Mines and Energy, the Honourable Geoff Wilson MP. The station achieved commercial handover on 7 December 2007.

The 750 megawatt baseload power station sets a new benchmark for environmental performance and innovative design among coal-fired plants in Australia. Kogan Creek is drycooled, which means it uses one-tenth of the water of a similar wet-cooled power station. The station's single boiler, turbine and generator unit is the largest in Australia, and took just over three years to construct.

We set up a transitional team to support our Kogan Creek staff through their busy start-up period and to share operational knowledge and skills. The team comprises ten employees relocated from Swanbank and Callide power stations.

Since commissioning, Kogan Creek has achieved a reliability of 87.6 per cent, which is slightly better than we expected for the station's first year of operation. Exceptionally heavy rainfall in early February 2008 temporarily shut down operations at the mine, as the wet conditions made it too dangerous to operate trucks in the mine pit. The mine and power station were offline for one day as a result. While the main plant was taken over in December 2007, operation and maintenance of the coal and ash plant remained the responsibility of construction contractor, Siemens Hitachi. Handover of these activities will occur once rectification of outstanding defects has been satisfactorily completed in early The Kogan Creek mine increased production in 2007/2008 to meet the power station's coal demand during commissioning and operation. Black coal from three mine seams is blended and supplied to the station at an average rate of 8,000 tonnes of black coal a day across a four-kilometre conveyor. In the seven months of operation to 30 June 2008, the mine produced 2.1 million tonnes of coal, and removed 4.7 million cubic metres of overburden. At this rate of production, we estimate the open-cut Kogan Creek mine has about 100 years of coal reserves.

Rehabilitation of our mine operations is a priority and, this year, we started earthworks on a section of the overburden dump, in preparation for planting with native trees and grasses.

#### Looking forward 2008/2009

Hand over coal handling system in early 2008/2009.

Prepare for the first 8,000 hours overhaul in October 2008.

Start mine rehabilitation program, planting native trees and grasses.

#### Callide Power Station









Callide B celebrated the 20th anniversary of operation in October 2007, and, around the same time, started a mid-life refit strategy to extend its operational life until at least 2028. This \$200 million, five-year overhaul program started with a major overhaul of Unit 1 in October 2007, which saw an extra 300 contractors on site.

Callide B recorded 89.6 per cent reliability for 2007/2008, reflecting its age and the need for the mid-life works. A two month outage of Unit 2 has been moved to early calendar 2009, to facilitate a dual outage to overhaul shared plant such as the cooling tower.

Callide C recorded a reliability of 81.9 per cent, with unresolved technical issues with the boilers continuing to be a major challenge for our team.

Since commissioning in 2001, Callide C's boiler manufacturer, IHI, has maintained responsibility for some boiler issues. This year, negotiations between IHI and the CS Energy InterGen Joint Venture were completed, with the responsibility of the boilers handed back to CS Energy, as asset manager. A strategy to improve the reliability of the Callide C boilers is being developed, and will be progressively implemented during 2008/2009.

We have engaged an external facilities management contractor at Callide for areas such as cleaning, airconditioning, fire protection, grounds maintenance and security. This means that the Callide team can concentrate on its core business. The process will be further evaluated and a similar model is planned for other sites.

To help us improve our understanding of the composition of coal going into the boiler, and improve plant performance, we installed a new coal analyser at Callide. This analyser is the first of its type in Australia, and it will be fully commissioned by July 2008. We are also starting to see results from the first stage of the dense phase ashing system, designed to improve water efficiency and extend the ash storage capacity of the station until the end of its operational life.

Water continues to be a challenge for the region and we are investigating retrofitting dry-cooling technology at Callide, with a proposal to be submitted to the Gladstone Area Water Board in 2008/2009. The Callide Dam, which supplies the township of Biloela with drinking water, has received little rain this year. However, the Awoonga Dam rose to 58 per cent, up 20 per cent on the previous year. Awoonga Dam is the power station's main water supply, with the water piped to the Callide Dam for use by the station and the town. This increase represents about three years of water for the station and the town.

In early 2008, Callide's Site Manager left to take up the position of General Manager Operations in the Brisbane Corporate Office, and the recruitment of a new site manager was finalised in August 2008.

#### Looking forward 2008/2009

Conduct dual overhaul as part of the Callide B mid-life refit program.

Recruit a new site manager.

Develop an operations and maintenance agreement between Callide Power Station and the Callide Oxyfuel Project Joint Venture Partners.

## Mica Creek Power Station









Mica Creek Power Station recorded a system reliability figure of 99.67 per cent and continues to perform strongly for the CS Energy portfolio. The station continued its excellent safety performance, recording one year without a lost time injury (LTI) in March 2008. The injury in March 2007 ended a record four year injury-free period, but the station boasts just one LTI in five years.

A bushfire caused a fault in Xstrata's high voltage transmission line in November 2007, resulting in six units tripping at Mica Creek and loadshedding and loss of supply to customers. It took crews two days to restore full generation at the station. Since then, we have worked with the parties involved in power distribution in the Mount Isa region to establish the North West Off-takers Working Committee, with the aim of improving system protection and reviewing the equity of load shedding protocols for system emergencies.

Significant performance gains have been achieved from the combined cycle C station, following a major overhaul and upgrade in April and May 2008. The unit has performed well since its return to service with a capacity gain of about seven megawatts.

A major overhaul on Unit A3 was also successfully completed, and other plant improvements during the year included the addition of a large raw water tank and the upgrade of facilities in the chemistry laboratory.

We have identified some structural concrete degradation in A station, and have engaged an engineering consultant to test and analyse concrete samples. We received their final report in July 2008, which provided repair strategies and actions.

A proposal from IsaLink to connect north west Queensland to the national grid gained media attention in January 2008. While CS Energy was not involved in this proposal, we welcome any project that increases the energy options available in remote north west Queensland. We are continuing to progress potential expansion plans for the Mica Creek Power Station. For more information on the Mica Creek Renewal Project, see page 46 of this report.

The media also reported elevated lead levels in residents around Mount Isa. Although this is not linked to our operations, we offered free testing for our staff and several individuals took up this offer.

#### Looking forward 2008/2009

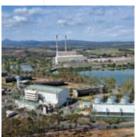
Finalise investigation of A station concrete issues.

Introduce a comprehensive training program for operations and maintenance personnel.

Focus on succession planning and attraction and retention strategies.

## Swanbank Power Station









In 2007/2008, Swanbank operated consistently and reliably, despite continued water restrictions imposed in the face of drought conditions. In September 2007, the station took delivery of recycled water from the Queensland Government's Western Corridor Recycled Water Project, which meant the station stopped taking water from the Wivenhoe Dam, alleviating pressure on the region's main water supply.

Since September 2007, 70 per cent of the raw water used at the station has been recycled water, with the remainder taken from stormwater runoff from the Warrill Scheme. The station currently receives 22 megalitres of recycled water a day.

As a major user of Ipswich town water, the station submitted a Water Efficiency Management Plan to Ipswich Water last year, and reduced its overall town water consumption by 45 per cent. In 2007/2008, the site continued to meet this commitment, maintaining reductions well below the 25 per cent target required under Level 6 Water Restrictions.

During 2007/2008, the Environment Protection Agency finalised amendments to Swanbank's development approvals to support operation under drought conditions and on recycled water.

The delivery of recycled water and a focus on preventative maintenance saw Swanbank B achieve 94.7 per cent reliability for the year. This figure was well above budget, and the station has recorded reliability figures above 95 per cent for the past five years, which is commendable given the age of the plant. Maintenance of the station is targeted at running Swanbank B units until at least 2011.

Swanbank E recorded 92.7 per cent reliability for the year, down slightly against the budget of 96 per cent due to the early replacement of selected gas turbine blades in August 2007.

The storage of ash from the coal-fired B station continues to be a challenge. This year, the Swanbank ash dam ash Management Plan was revised after upgrading of the spillway, as part of an ongoing storage capacity assessment and review with the EPA. We also submitted a certified engineering design plan to the EPA for approval to construct low-height internal bunds in the Swanbank ash dam, to further increase storage capacity. In response, the EPA has requested a third party review of the proposed design, which is under way.

The successful demolition of the old coal-fired Swanbank A has made the site available for a new, highly-efficient gas-fired Swanbank F station, if it proves feasible. The project team started community engagement for the project, which will be built on the old Swanbank A site. For more information on the Swanbank F Power Project, please see page 46 of this report.

#### Looking forward 2008/2009

Prepare for major overhaul of Swanbank E gas turbine to check internal hot gas path components.

Evaluate the impact of increased water and carbon costs on Swanbank B.

Progress plans for the new gas-fired Swanbank F Power Project.



Swanbank started taking recycled water from the Western Corridor Recycled Water Pipeline in August 2007. Since then, we've used almost 5,000 megalitres of recycled water in our operations, instead of taking this water from the Wivenhoe Dam.

The Western Corridor Recycled Water Scheme is the first of its kind in Australia, and Swanbank was the first power station to start operating on recycled water. Getting ready for this project gave us technical challenges, but we've now secured a reliable source of water for the station's future.

DARREN KENDRICK - SWANBANK POWER STATION

## Resources









Our power stations are fuelled by black coal, natural gas, coal seam methane (CSM) and landfill gas.

In the last ten years, we have increased the proportion of gas-fired generation in our portfolio and invested in the latest technology for both coal and gas-fired plant.

Water is also an essential resource for generating electricity, and we use recycled water, raw water and town water in our operations. Each site has water management strategies to maximise the efficient use of this precious resource.

A by-product of coal-fired generation is fly ash, which can be recycled for use in concrete manufacturing, soil enhancement or as fill.

#### Coal

We have a coal supply agreement for each of our three coal-fired power stations, and are currently investing in low-emission coal technology. For more information on our clean coal demonstration project, the Callide Oxyfuel Project, please see page 44 of this report and the CS Energy website 29.

At Swanbank, coal is supplied under a supply agreement with New Hope Coal Australia.

The black coal is transported by either truck or rail from New Hope's mines at Acland, on the Darling Downs, and Oakleigh and Jeebropilly in the Amberley/Rosewood region near Ipswich. Callide is supplied by conveyor belt from the adjacent Callide coalfields under a contract with a subsidiary of Anglo Coal Australia. We own the coal mine that supplies our newest station at Kogan Creek, and the coal is transported from the mine to the power station via a four-kilometre conveyor belt.

#### Fly ash

Fly ash is a by-product of coal combustion, comprising primarily alumina and silica in a fine powder. It can be used as a cement replacement in concrete, as a soil improver, an adsorbent for oil waste removal, or as fill in large civil engineering projects such as highway embankments. We are a member of the Ash Development Association of Australia, which promotes the beneficial use of power station fly ash.

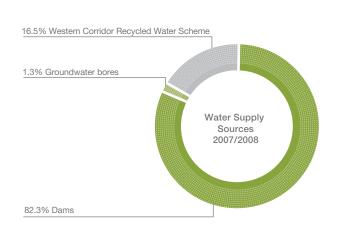
This year we continued to work with a number of major cement companies on recycling fly ash, and we recycled approximately 82,000 tonnes of fly ash from Callide and 27,000 tonnes from Swanbank. We currently supply ash to Cement Australia, Global Cement, Renewed Resources and Transpacific.

#### Gas

CS Energy's gas portfolio underpins our business objective of lowering our carbon intensity through fuel diversity. We have gas purchase agreements at Mica Creek and Swanbank E power stations, but our long-term growth depends on securing additional gas for the future.

Mica Creek Power Station is fuelled by gas from Santos' south west Queensland fields, via the Carpentaria Pipeline. In south east Queensland, we source gas for Swanbank E from Santos' Scotia CSM field, Queensland Gas Company's Berwyndale South CSM field, Mosaic's conventional gas field near Wallumbilla, and the CS Energy/Arrow Energy CSM joint venture at Kogan North.

Our strategy of combining long-term gas agreements with investment positions in CSM development fields will provide a diverse mix of supply.





In 2007/2008 we advanced a number of our gas options, including:

- CS Energy/Metgasco Joint Venture at the Casino CSM field, NSW
- CS Energy/Arrow Energy Joint Venture at the Kogan North CSM field, near Chinchilla
- CS Energy/Mosaic Oil Buyer-Funded Operations in the Surat-Bowen Basin
- Queensland Gas Company's Berwyndale CSM field
- Santos' Scotia CSM field near Roma.

For more information on our gas developments, see page 47 of this report and the CS Energy website 29.

#### Water

Efficient water use is a high priority for our sites. Each site has water management strategies in place to maximise its water conservation and this has resulted in improved water usage at all sites except Callide, which recorded an increase of just two per cent.

Across the portfolio this year, our water consumption was 25,324 megalitres, an 8.9 per cent decrease on the previous year. We also measure our water use intensity, which shows how many megalitres of water we use per gigawatt hour of energy sent out (ML/GWhso). This year we recorded a water use intensity of 1.64 ML/GWhso, a 17.3 per cent decrease from 2006/2007.

Water for the Callide Power Station is supplied predominantly from the Gladstone Area Water Board's Awoonga Dam, and is piped to the Callide Dam to minimise evaporation. We also have an allocation from the Callide Dam, which provides the Banana Shire with drinking water, and we are currently investigating opportunities to dry-cool Callide to help reduce the pressure on water supplies in the region.

This year Swanbank Power Station started taking water from the Western Corridor Recycled Water Project. We also have an allocation from SunWater's Warrill Scheme, a supplementary water supply based on Moogerah Dam, and SEQWater's Wivenhoe Dam for the station. These arrangements will be replaced in July 2008 by a single arrangement with the South East Queensland Water Grid, an organisation

established during 2007/2008 to control and operate all water supplies in south east Queensland.

Kogan Creek has a dry-cooling system and our water consumption is minimal at this station. The water it does use is supplied from local bores.

Mica Creek receives water from the Leichardt supply system and Rifle Creek Dam. The station cycles its cooling water up to 12 times through the power station, and provides its effluent water for reuse by Xstrata mining operations. This year, the station supplied 381.5 megalitres of water to the mine.







# 03

## **GROWTH**

# Major Projects Completed

#### Progress 2007/2008

Completed the handover of the Kogan Creek Power Project from the construction consortium, Siemens Hitachi.

Started commercial operation of the Kogan Creek A Power Station and coal mine on 7 December 2007.

Finished the demolition of the old coal-fired Swanbank A Power Station.









#### **Kogan Creek Power Project**

The Kogan Creek Power Project drew to a close with the start of the station's commercial operations on 7 December 2007. The 750 megawatt station is now supplying the National Electricity Market with enough electricity to power one million homes. The Kogan Creek coal mine was brought into production at the same time as the station.

On opening, the \$1.2 billion station was heralded as a new era in electricity generation due to its efficiency, environmental performance and innovative design. It was officially opened on 27 November 2007 by the Queensland Premier, the Honourable Anna Bligh, MP and Queensland Minister for Mines and Energy, the Honourable Geoff Wilson, MP.

A Siemens Hitachi consortium constructed the station, and Golding Contractors developed the adjacent coal deposit as an open cut mine. The supply and construction contract for the power station was approximately \$900 million. The contracts awarded to Australian firms accounted for more than half the value of the works, at around \$460 million. Queensland firms were a major beneficiary of the project, being awarded approximately \$330 million worth of work, with \$60 million worth of work awarded to regionallybased firms. Additionally, local Chinchilla and surrounding shire businesses obtained direct construction and site services contracts of around \$21 million with Siemens Hitachi, and a similar amount in direct cash flow is estimated to have been generated in the local area from sub-contractor services.

# ENVIRONMENTAL BENCHMARKS FOR THE KOGAN CREEK POWER STATION

BENCHMARK IMPROVEMENT ON NATIONAL AVERAGE FOR COAL-FIRED PLANT

Water 90%

CO<sub>2</sub> 5%

NOX 22%

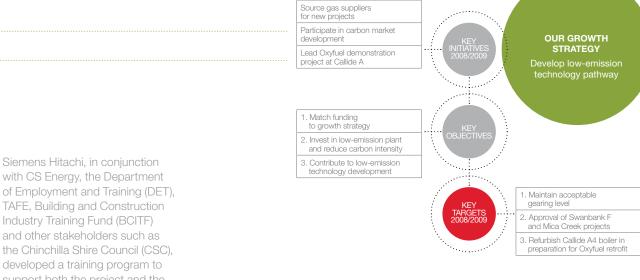
55%

Particulates

Following handover, the construction consortium entered a 12-month defect liability period to address any ongoing operational issues. One of the issues during initial operation was the coal transfer system, with coal supply chutes becoming blocked when the coal was wet. This has been resolved through a chute redesign. Siemens Hitachi continues to work on operational issues with the coal chain conveyor system.

Since construction began in September 2004, approximately four million hours were worked. In the busiest period, October 2006, the workforce peaked at 974. During construction Siemens Hitachi recorded nine lost time injuries.

At its peak, there were just over 200 local personnel, representing about 23 per cent of the workforce. These skills were supplemented by industry specialists from nine countries. While every effort was made to recruit locally, low unemployment rates in the region and competing developments in gas-fired power stations, coal mines, gas exploration and establishment, and transmission and pipeline construction projects all impacted on the availability of suitable personnel.



Implement partnering strategy

with CS Energy, the Department of Employment and Training (DET), TAFE, Building and Construction Industry Training Fund (BCITF) and other stakeholders such as the Chinchilla Shire Council (CSC), developed a training program to support both the project and the community. The program was designed to complement those already offered regionally by the DET, TAFE, BCITF and CSC. In summary, more than 29,000 hours of community up-skilling and over 42,000 hours of on-site program delivery were provided for 1,822 participants.

The total training and up-skilling expenditure by DET and BCITF was in excess of \$735,500. TAFE training was also provided to the retail, hospitality and business sectors so the local workforce could meet demand for these services in support of the project.

For more information on the Kogan Creek Power Station, please see page 33 of this report.

## Swanbank A demolition project

The \$19 million Swanbank A demolition project was finished in November 2007, with the site now prepared for the planned new Swanbank F Power Project. It took the contractor, Trio Industries, two and a half years, and around 129,000 hours to demolish the old coal-fired power station built in the 1960s. Over the life of the project, two lost time injuries were recorded.

KOGAN CREEK POWER PROJECT DETAILS		
SITE AREA	Construction site was approximately 50 hectares; Main plant footprint 7.5 hectares	
STRUCTURAL STEEL	Between 13,000 - 14,000 tonnes of structural steel used	
BOILER STRUCTURE DIMENSIONS	64m wide x 71m deep x 78m high	
BOILER WEIGHT	24,000 tonnes	
FOUNDATIONS	Approximately 35,000 cubic metres of concrete	
BOILER PIPING	Approximately 27,000 metres	
MAXIMUM FLAME TEMPERATURE	Approximately 2,000°C	
STEAM TEMPERATURE	Main steam temperature, 541℃	
REHEAT STEAM TEMPERATURE	561℃	
COAL CONSUMPTION	Between 330 and 355 tonnes per hour	

## Low-emission Coal

#### Progress 2007/2008

Signed joint venture agreement between six international project partners.

Secured \$50 million funding from the Australian Government's Low Emission Technology Demonstration Fund and \$10 million from the Queensland Government.

Started technical work on the first stages of the Callide A4 boiler refurbishment.

Progressed design concepts for Kogan B, including dry-cooling technology and carbon-capture readiness.

#### The Callide Oxyfuel Project

The \$206 million Callide Oxyfuel Project passed several major milestones this year to become one of the most advanced clean coal projects in Australia.

Led by a joint venture partnership of six international companies, the project will demonstrate how we can produce electricity from coal, with almost no emissions, by capturing the carbon dioxide (CO<sub>2</sub>) from the power station and storing it underground.

The Callide Oxyfuel Project, a flagship project of the Asia-Pacific Partnership on Clean Development and Climate (APP), is an important step towards demonstrating practical and adaptable technology to help to tackle climate change.

Construction of the project will begin with oxyfuel technology being retrofitted to our Callide A Power Station next year on Unit 4 (30 MW), with oxyfuel electricity generation scheduled to start by 2011.

This year, CS Energy received \$50 million in funding from the Australian Government's Low Emission Technology Demonstration Fund and an additional \$10 million from the Queensland Government, which it will direct into the Callide Oxyfuel Project together with its own direct funding of \$35 million. Additional funding was received from the Australian Coal Association's COAL21 Fund, Xstrata Coal, Schlumberger, IHI Corporation, JPower, Mitsui and the Japanese Government.

Final ratification of the project was given in March 2008, at an official joint venture signing between Australian and Japanese project partners.

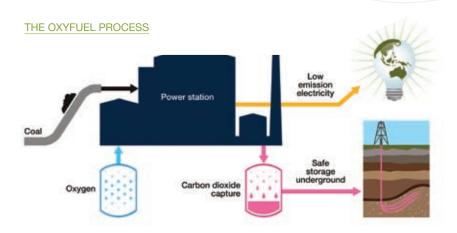
The project comprises two key processes:

- oxyfuel combustion and CO<sub>2</sub> capture at the power station, and
- 2. the long-term storage of CO<sub>2</sub> underground (geosequestration).

Building international partnerships is a key element of this project. We further strengthened our links with Japanese climate change and clean coal experts through three major events in March and April 2008.

In March 2008 we participated in the third Oxyfuel Combustion Network in Japan, organised by the International Energy Agency's Greenhouse Gas Research and Development Program. Later in the month, we hosted a group of leading Japanese resource and energy experts, including representatives from government, leading industrial companies and Japanese research institutions.

In April 2008, our Chief Executive, David Brown, accompanied the Queensland Premier, The Hon Anna Bligh MP, during a trade mission to Japan to meet with coal industry representatives. In a series of highlevel meetings, the group discussed plans for Queensland infrastructure and opportunities for scientific and technological collaborations for the state.



Technical work also started on the first stages of the construction program, with the completion of the front-end engineering design studies and preparation of plant refurbishment and supply contracts. These contracts were awarded in August 2008, and work on the boiler refurbishment started on site in September 2008. Construction of the main plant is scheduled to begin in 2010. The project is due for completion by 2012, and will operate for up to four years.

Sub surface experts Schlumberger have supported the Joint Venture in assessing areas suitable for geological storage of CO<sub>2</sub>. This year, several deep reservoirs within the Denison Trough geological formation, 200 kilometres west of Callide, were identified as potential sites for storing CO<sub>2</sub>. Over the next 12 months, more detailed investigations and stakeholder consultation proposed to define the specific location for the CO<sub>2</sub> storage demonstration, targeted for 2012.

For further information on the Callide Oxyfuel Project including project schedules and technical details please visit our website 29.

#### **Kogan B Power Project**

We continue to examine expanding the new Kogan Creek Power Station to include a second generating unit on the site. Design concepts for Kogan B include an ultra-supercritical, high-efficiency steam-cycle unit. It will be dry-cooled and ready for carbon capture technology. If the Callide Oxyfuel Project successfully proves oxyfuel technology as a carbon capture option, we will fit this technology at Kogan B as part of our low-emission coal portfolio.

#### Looking forward 2008/2009

Commence boiler refurbishment of the Callide A4 boiler in preparation for Oxyfuel.

Select a suitable geological storage site for carbon dioxide storage.

Officially launch the Callide Oxyfuel Project in late 2008.

Continue to progress Kogan B plans, with the aim of retrofitting it with carbon capture and storage as a future showcase for low-emission coal.

Work with industry and government in the development of the necessary infrastructure and regulations for CO<sub>2</sub> storage in Queensland.

# Gas Projects

#### Progress 2007/2008

Completed initial designs for the Mica Creek Renewal Project.

Commenced stakeholder engagement for the Swanbank F Power Project.

Finalised Swanbank F gas plant design specifications.

#### Mica Creek Power Station Renewal Project

This year we continued plans to replace some of the older generating plant at Mica Creek with new, high-efficiency plant. We have completed the initial design work for the project, and have been working with customers to secure supporting power purchase agreements so the project can move forward.

In 2008/2009 we will make a final decision on the project and, if approved, we will be seeking firm commitments from customers, carrying out the environmental impact assessment and calling for tenders to supply the first stage of the upgrade. The new plant will supply up to 115 megawatts of electricity.

This project will reduce our fuel consumption and carbon intensity at Mica Creek, meet the continued demand growth in the North West Minerals Province and continue to provide competitively priced power to our customers.

#### **Swanbank F Power Project**

Our Swanbank F Power Project made significant progress this year. This planned new gas-fired combined cycle unit will be located on the former Swanbank A site. It will use state-of-theart technology, and generate about 400 megawatts of electricity. We plan to have Swanbank F in commercial operation by early 2012.

The concurrent development of Metgasco's Casino coal seam methane (CSM) fields underpins the gas supply for Swanbank F.

In August 2007 we commenced a stakeholder engagement program, providing briefings to state members for the area and local councillors. We also held an open community information session about the project to identify any community concerns.

This year we finalised the plant technical specifications, which will enable us to call tenders for construction of the station. We will also complete relevant environmental reviews by this time, as required under the *Integrated Planning Act 1997* (IPA).

In 2008/2009 we will be focusing on proving and securing gas supply, putting plant supply contracts in place, and seeking final development approval, if it is decided to go ahead with the project. Subject to the successful development of the Metgasco project, we aim to commence construction in the next financial year.

#### Looking forward 2008/2009

Prove and secure gas supply arrangements.

Subject to project approval, obtain licences and start construction of the Swanbank F Power Project.

Finalise power purchase agreements to underpin the Mica Creek Power Station Renewal Project.

# Gas Developments

#### Progress 2007/2008

Commenced drilling at Metgasco's CSM field near Casino, with five pilot wells completed during the year.

Increased production at Arrow Energy's Kogan North CSM field.

Signed agreement with Mosaic Oil to fund four initial wells at its Waggamba field.

#### Metgasco Gas

The Metgasco Joint Venture underpins the gas supply for the proposed Swanbank F development. These CSM fields are located near Casino in northern New South Wales. We signed a farm-in agreement with energy company Metgasco in December 2006 to establish 540 petajoules (PJ) in 2P gas reserves (proven and probable). If sufficient reserves are established, 18 PJ per year will be supplied to the Swanbank Power Station.

We currently hold a 15 per cent interest in three blocks in the tenement PEL 16, with the right to acquire a further 35 per cent farm-in interest. A pilot well program commenced in November 2007 and a total of five horizontal wells have been drilled. Production testing of the flow rates in these wells will continue through the remainder of calendar 2008. The gas reserves were upgraded in March 2008 to 227 PJ (2P).

Pipeline approvals are also under way for the development of a 150 kilometre pipeline from Casino to Swanbank. The Pipeline has been declared a major project in New South Wales, and federal and Queensland approvals are currently being processed. Survey field work to confirm the location of the pipeline has commenced in both Queensland and New South Wales. The development, which has been renamed the Lionsway Pipeline, is being managed by Metgasco and we expect the pipeline licence to be issued by June 2009.

#### **Kogan North Gas**

We hold a 50 per cent interest in Arrow Energy's Kogan North CSM field PL194. In June 2008, the field increased production to just below 10 terajoules a day (TJ/d). This remains below the full contract quantity of 11 TJ/d but field production is increasing. Arrow Energy has drilled four new wells and four maintenance wells to increase production.

#### **Mosaic Gas**

In March 2008, we signed a Buyer-Funded Operations Agreement with Mosaic Oil to fund four initial wells at its Waggamba field development in south west Queensland. The first well was drilled in April 2008 and has produced in the order of 2 TJ/d, which is a pleasing result. The second well was drilled in June 2008 and is expected to produce a similar quantity of gas. The field will supply 5 PJ of gas to Swanbank Power Station until June 2013.

## Looking forward 2008/2009

Continue development of the Metgasco field.

Work with other gas partners to secure additional gas supply for Swanbank Power Station.



Coal is the lifeblood of this region. Thirty-four years ago I started at the Callide A Power Station as a young apprentice. Since then, I've been part of the start-up of six coal-fired power stations around central Queensland. But now it's time to look to the future.

Our country is very reliant on coal, but we also need to act now to reduce our greenhouse emissions. New generation coal technology, like Oxyfuel, is based on the thermal power station process we've been using for years. Oxyfuel is a step ahead of other projects because it can be retrofitted to existing power stations.

If we can prove this technology, we're a step closer to securing a future for our region and this community.

DAVID VAN ITALLIE – CALLIDE POWER STATION.

# Renewable Technologies

#### Progress 2007/2008

Celebrated six years of renewable energy generation at the ReOrganic Energy Swanbank project.

Finalised a seven-year partnership with the Cooperative Research Centre for Coal in Sustainable Development (CCSD).

Worked with our CS Energy Research Fellow and the CCSD to produce a handbook on biomass co-firing.

#### **ReOrganic Energy**

ReOrganic Energy Swanbank, a joint project between CS Energy, Thiess Services, Landfill Management Services and New Hope Energy, entered its sixth year of operation in 2008 and is still one of Australia's largest waste-to-energy initiatives.

The project takes landfill gas from Thiess Services' Swanbank Landfill and co-fires it with coal in one of Swanbank B's boilers. ReOrganic produces five megawatts of electricity continuously and has reduced greenhouse gas emissions by over 780,000 tonnes since its inception.

# Developing renewable energy technology

Our aim is to introduce an additional renewable energy project to our portfolio in the next couple of years. We are currently in discussion with proponents of three separate renewable energy technology development projects, including advanced solar thermal energy, solar voltaic energy and geothermal energy.

In 2008/2009 we will conduct a feasibility study on these projects, with the aim to have a firm proposal by the end of calendar 2009.

#### Research and development

We continue to focus on improving the use of coal in power generation through other research and development programs. We have been actively involved with the Cooperative Research Centre for Coal in Sustainable Development (CCSD) since its inception in 2001, the Ash Development Association of Australia and the United States-based Electric Power Research Institute (EPRI).

This year saw the end of the CCSD's seven-year program, which has contributed significantly to the knowledge and technical capability that will underpin the development of low-emission coal generation in Australia. The program sought to gain a better understanding of the environmental performance of coal in power generation, and contribute to the development of lower emission technologies.

The centre's research and feasibility study into oxyfuel combustion underpinned the development of the Callide Oxyfuel Project. We also played a key role in the technical assessments of other clean coal technologies, including co-firing of coal and biomass. This year the CCSD completed handbooks on biomass co-firing and coal combustion products in conjunction with CS Energy's Research Fellow.

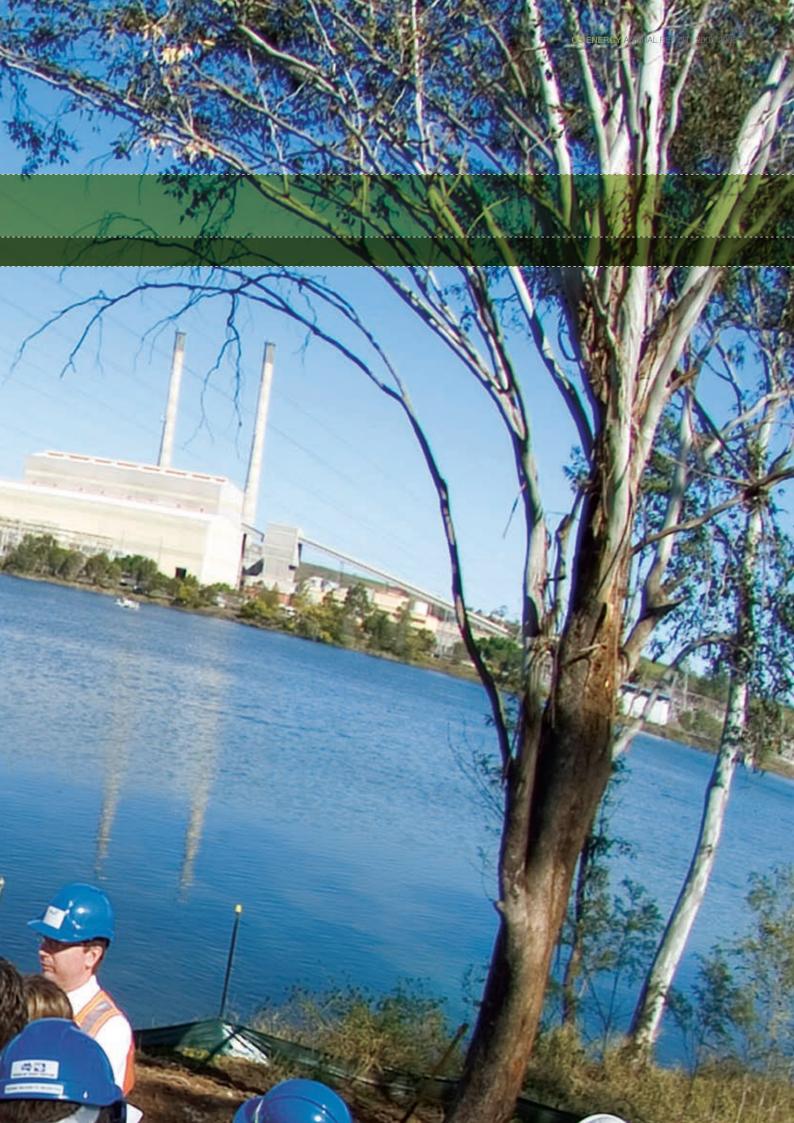
Through our association with EPRI, we access the industry's best practice, training and research opportunities aimed at enhancing the performance of coal and gas-powered generation plant. In 2007/2008, we continued to support EPRI research into improving plant performance in steam turbines, generators and balance of plant; heat recovery steam generators; boiler and turbine steam and cycle chemistry; and plant maintenance.

#### Looking forward 2008/2009

Continue generating green energy at ReOrganic Energy Swanbank.

Conduct feasibility study into three renewable energy projects.







# SOCIAL LICENCE

## Environment

#### Progress 2007/2008

Reduced water use intensity by 17.3 per cent.

Commenced development of carbon offset program.

Participated in Earth Hour and marked World Environment Day with a staff photography competition.

We are committed to responsible and best practice environmental performance. More specifically, we are committed to monitoring and carefully managing each of the inputs and outputs of the electricity generation process through continual improvement in emission reduction, resource management, water conservation, and waste management.

#### **Emissions**

In anticipation of the Federal Government's Emissions Trading Scheme (ETS), CS Energy has commenced development of a comprehensive carbon offset program. The final shape of the program will be dictated by the national ETS but we are working to create a program that supports meaningful projects and creates a genuine impact in the long term.

We have been a member of the Australian Greenhouse Office's Greenhouse Challenge Program since 1997, with the aim of reducing the greenhouse impact of our operations. Since that date, we have decreased our carbon intensity by 15 per cent, from 933 tonnes of  $\rm CO_2$  equivalent per gigawatt hour sent out ( $\rm tCO_2$ -e/GWhso) in 2001/2002 to 834.4 in 2007/2008. This outcome has been largely achieved through increasing the proportion of gas-fired generation in our portfolio, and decommissioning older, less efficient plant.

A key commitment in our carbon strategy is the Callide Oxyfuel Project. This \$206 million project is a partnership between Australian and Japanese industry and government, to demonstrate how we can produce electricity from coal with near-zero emissions. This technology can be

fitted to existing coal-fired power stations, so we can start making an impact on emissions from operating power stations around the world. For more information on the Callide Oxyfuel Project, refer to page 44 of this report.

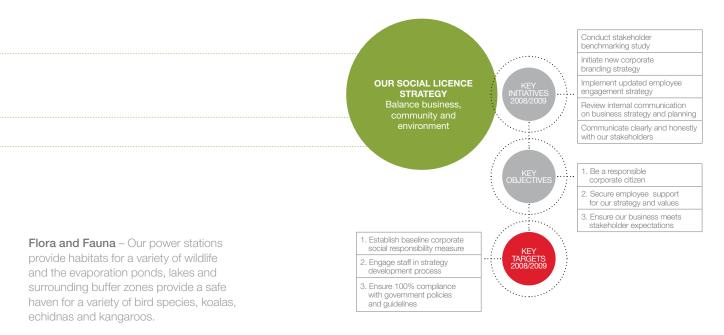
#### Managing our resources

We work to ensure our operations are as efficient as possible, which includes our use of natural resources. We aim to reduce our natural resource use, and increase the efficiency of our waste management, including:

Water management – in response to environmental conditions and the vital need to conserve water, we have introduced a number of water efficiency initiatives at our power stations, such as recycling and wastewater treatment, to ensure we continue to conserve this scarce resource. For more information on our water management, please see page 39 of this report.

Fly ash emission control – fly ash is produced at all coal-fired power stations as a result of generating electricity.

At Swanbank, Kogan Creek and Callide, more than 99.9 per cent of the ash produced is collected before it is released into the air through giant vacuum-like cleaners. Some of this recovered fly ash is sold for reuse in cement manufacturing, soil improvement or as fill. For more information about recycling fly ash, see page 38 of this report.



#### Innovative improvement

We consider that there are always opportunities for improvement. Innovative thinking is sometimes needed to generate ideas, and, this year, some innovative thinking from those who know our operations best – our staff – produced first-class improvements.

At Swanbank, an improved stormwater management system was developed. Two maintenance staff members devised an efficient way to remove particles and oil from stormwater run-off, replacing the old sandbag method with a metal guard and filter system. These drain guards have been fitted at over 20 locations around the station.

At Callide, a project to enclose the coal slot bunker has resulted in a significant reduction of coal dust on site, and we have initiated a voluntary program to improve bunding at the Callide Bulk Oil facility.

#### Raising sustainability awareness

In May 2008, we participated in Biloela's inaugural Sustainability Day, an event to profile energy conservation and sustainability projects in the local region. This day provided us with an opportunity to update the local community on clean coal, and the Callide Oxyfuel Project. The event was organised by Ergon Energy and the Environmental Protection

Agency, as part of the *ClimateSmart Living Communities* program.

All CS Energy sites participated in Earth Hour, an initiative that aims to demonstrate the large reduction in electricity consumption that can be achieved when many of us make a small change. For one hour on 29 March 2008, participants turned off all electrical appliances and lights. Since beginning in Sydney in 2007, this concept is now a global event, encompassing 50 million people in more than 35 countries across 18 time zones. CS Energy participated

by turning off all non-essential lighting and equipment at its four stations and in the corporate office, and encouraged staff to do the same at home.

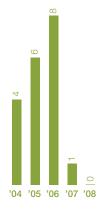
World Environment Day in June 2008 was an opportunity for us to consider the global impact we have as a business and to show our motivation as individuals. We celebrated the day by giving each of our staff an Australian native shrub, sourced from local, native nurseries, and conducting an internal photography competition. The winning entries will be featured in our 2009 CS Energy calendar.

INPUTS AND OUTPUTS			
INPUTS/OUTPUTS	2006/2007	2007/2008	% CHANGE
Total Energy Sent out (GWh)	13,996	15,430	10.25
Coal Used (Tonnes)	5,234,787	6,123,291	16.97
Gas and Renewables Used (TJ)	37,885	34.502	-8.93 <sup>1</sup>
Gas and Renewables Elec. Generation (% of portfolio)	29.31	24.83	-4.48
Renewable Generation (GWh)	31.49	30.93	-1.80
Greenhouse Gas equivalent produced (Million tonnes $\mathrm{CO_2}$ -e)	11.60	12.87	10.98
Greenhouse Gas Intensity (tCO <sub>2</sub> -e/GWhso)	828.91	834.39	0.66
Water consumption (ML)	27,796	25,324	-8.89
Ash Produced (Tonnes)	1,117,616	1,391,951	24.55
Ash Sold (Tonnes)	81,548	106,464	30.55

<sup>1</sup>Drop in gas and renewables used due to outages associated with the replacement of turbine blades at Swanbank E.

# Environment continued

#### REPORTABLE ENVIRONMENTAL INCIDENTS\*



\*Incidents classed as category 3 or 4, which are reportable to the Environmental Protection Agency.

ENVIRONMENTAL INCIDENTS BY SITE 2007/2008		
SITE	INTERNAL	EXTERNAL
Swanbank	8	0
Callide	72	0
Mica Creek	15	0
Kogan Creek 3		0

\*More than half of Callide's internal incidents relate to ash leaks. In June 2008, we replaced over four kilometres of pipe between the power station and the ash dam to rectify this problem.

#### **Environmental Management System**

We recognise that sound environmental management is vital to our longterm business success. In addition to adhering to a company-wide Environmental Policy, our four power station sites and our corporate office operate within an Environmental Management System (EMS), which helps us understand the impact our operations have on our environment, and systematically address risks by preparing targets, strategies and action plans to minimise each site's impact. Our policy and details of our EMS can be found on our website 2.

All sites except Kogan Creek A Power Station are certified to the international standard ISO14001 for Environmental Management Systems. In the coming year, we will seek re-certification of the Swanbank, Callide and Mica Creek power stations' EMS. Our new Kogan Creek A Power Station developed its initial EMS in advance of operational commencement, which was accepted by the Environmental Protection Agency (EPA) in February 2007. We are working towards future certification of Kogan Creek's EMS under the ISO14001 standard.

#### **Environmental performance**

We are a foundation signatory of the Code of Environmental Practice, developed by the Energy Supply Association of Australia (ESAA). Through this Code, we aim to sustain a standard of industry-specific best practice by adopting practices that are responsible and progressive in the areas of sustainable development, social responsibility, environmental management and resource management. Demonstrating our commitment to strengthening the link between governance and sustainability, all our environmental incidents are identified, reported, assessed and monitored under our EMS. Our performance is benchmarked against other Australian generators in accordance with ESAA's rating system. In 2007/2008 CS Energy's environmental performance was rated 4.4 out of 5.

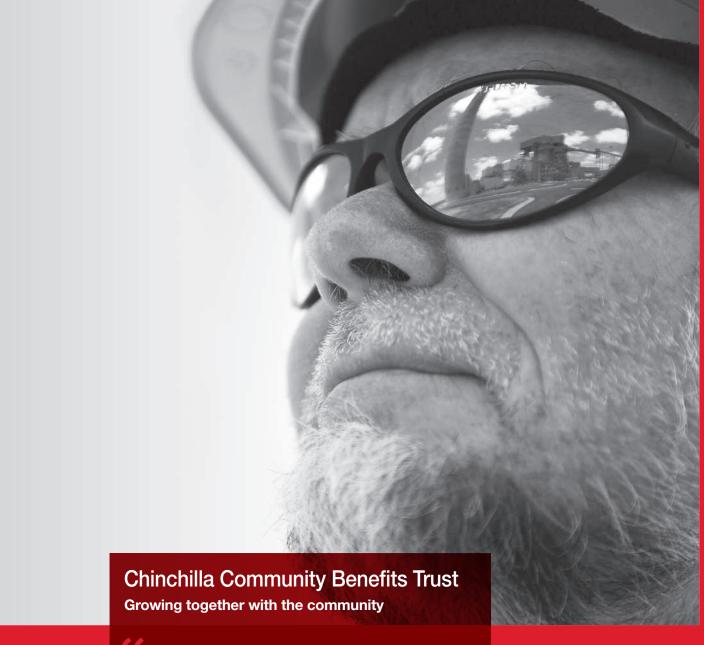
We class environmental incidents as Internal (category 1 and 2), which means the incident was minor, with no off-site impact, and External (category 3 and 4), which must be reported to the EPA, and may have resulted in off-site impact. See our glossary for a more detailed definition of environmental incidents.

In 2007/2008 we recorded a solid environmental performance at our operating sites, with no external incidents classed as 'notifiable' under the *Environmental Protection Act 1994*. We voluntarily reported two minor events at the Callide Power Station and five minor events at Swanbank Power Station to the EPA. In all cases the EPA was satisfied by our responses.

#### Looking forward 2008/2009

Re-certify Swanbank, Callide and Mica Creek's EMS in line with ISO14001.

Establish carbon offset activities.



The long term future of a community depends on everyone thriving. That's why, during the construction of the Kogan Creek Power Station, we set up the Chinchilla Community Benefits Trust.

Money from the trust funded social infrastructure and community service projects to help local community and our business grow together. In its first three years we have invested \$622,900 in local community projects.

WARREN BRELL - KOGAN CREEK POWER STATION

## Community

#### Progress 2007/2008

Celebrated the eight year anniversary of the Swanbank Community Reference Group.

Developed Generosity, a company-wide workplace giving program.

Invested more than \$210,000 in sponsorships and donations in the communities which host our operations.

Conducted *Moving Opera!* workshops in Mount Isa and Ipswich.

Our operations impact a range of stakeholders, including the communities that host our operations, our employees, shareholders, government regulators and special interest groups.

An active community relations program helps us to keep in touch with our stakeholders to understand and address their concerns at a local level, and to identify better ways of doing business in these regions.

#### **Community Relations**

In 2007/2008, we strengthened our reputation and stakeholder relationships by engaging and maintaining open and honest dialogue with our stakeholders and building regional links to support the communities in which we operate.

During the year we continued our face-to-face communication with neighbours who are directly or indirectly impacted by our operations. At Swanbank, our Community Reference Group (CRG), run jointly with Thiess Services, is now in its eighth year. The Group provides a vital link between the operations of CS Energy and Thiess Services, and the booming residential population in the area. The CRG meets every eight weeks, delivers a newsletter, *Swanbank Talk*, to more than 8,000 local residents, and holds biannual public meetings.

At Callide, community briefings in response to operational issues or activity at the power station continue. During the year, briefings on our Callide Oxyfuel Project were held with various business

groups, industry leaders and the local council. A community engagement program for the project is currently in development, and will be implemented as the project advances during the 2008/2009 year.

Callide Power Station is preparing for a busy year with the dual outage mid-life overhaul planned for Callide B in April/May 2009. This will be the biggest overhaul the station has undertaken, with work opportunities available for an extra 500 people for set periods at a time. We have been talking with Biloela businesses to establish strategies to cope with the expected accommodation pressure and we continue to keep them abreast of the station's timetable.

In Chinchilla, a CRG was formed for the Kogan Creek Power Project. With construction of the power station now complete, the group was wound up and in December 2007, we hosted a special community function for more than 150 Chinchilla residents to thank them for their support during the construction of the Kogan Creek Power Station and mine.

As a lasting gesture, CS Energy commissioned Queensland sculptor Peter Kozina to craft a sculpture from power station scrap metal, to be displayed in Chinchilla. The result was 'Monitor', a metal goanna sitting atop a silky oak base, which the Chinchilla Shire Mayor accepted on behalf of the community.

#### **Partnerships**

As a major employer in each of the communities that host our operations, we aim to actively contribute to initiatives that have a positive impact on these communities. This year we invested more than \$210,000 in sponsorships and donations.

#### Moving Opera!

We established one of our flagship partnerships, Opera Queensland's *Moving Opera!* more than six years ago. This five-day workshop and performance program introduces students to opera and music theatre, and was originally offered only to schools in the Brisbane area. Our partnership enables Opera Queensland to offer *Moving Opera!*, free of charge, to students in regional communities. In 2007/2008 *Moving Opera!* workshops were conducted in Mount Isa and Ipswich.

# Keep Australia Beautiful (Queensland)

In conjunction with Thiess Services, we have established a partnership with Keep Australia Beautiful (Queensland), and assist with their environmental education program by inviting students to tour the Swanbank Power Station and the adjacent Thiess Services Swanbank Landfill. This year, more than 527 students participated in the tours.

### **Chinchilla Community Benefits Trust**

CS Energy and the Chinchilla Shire Council established the Chinchilla Community Benefits Trust in 2004, to provide community support during the construction of the Kogan Creek Power Station, in its first years of operation. The fund supports charitable projects that benefit the local community, and to date has invested \$622,900 in social infrastructure and community service projects in the region.

#### **Boonah Arts Festival**

We continue to sponsor the Boonah Arts Festival, which encourages creativity and innovation in this regional community. In 2009, we plan to make the festival carbon neutral, as part of our business focus on carbon footprints.

#### **Great Letterbox Challenge**

At Swanbank, apprentices got creative for charity by competing in the Great Letterbox Challenge. Six apprentices designed a 3D letterbox, which was auctioned at the Ipswich Arts Council fundraising event to assist local charities.

# Swanbank Community Reference Group Grants Program

During 2007/2008 local community groups continued to receive valuable support from the Swanbank CRG. With funds and services provided by CS Energy, Thiess Services and Ipswich City Council working through the CRG, improvements have been made to local facilities and programs. This included a tree planting project at Redbank Plains State School, sun protection awnings at a local child care centre and a sandpit fencing project at Raceview Prep School. Older members of the community also received assistance with the extension of a retaining wall for the Rose Memorial Gardens at Ipswich Hospice and the provision of furniture for the Elim Retirement Village.

#### **Business and Industry events**

We continue to support the Chamber of Commerce Business Awards in Mount Isa, Ipswich and Chinchilla. The awards provide an opportunity for the regional business communities to come together and celebrate their achievements. Callide also supported the Banana Shire Industry Summit in 2007, which saw key industry leaders discussing current and future activities and needs within the Gladstone hinterland.

# Biloela Rockfest and Comedy and Food Festival

We continue to support two of the major events on the Biloela calendar. Rockfest, a showcase for local musical talent, and the Comedy and Food Festival, a celebration of food and laughs in central Queensland.









# Community continued

#### **Philanthropy**

In June 2008 we established Generosity, a new workplace giving program whereby staff can make a pre-tax payroll deduction to a charity, with CS Energy matching staff donations up to \$50,000 each year.

The program will commence at the beginning of the 2008/2009 financial year, and we have committed up to \$50,000 in the first 12 months of the program. Together with staff contributions, we have the potential to donate more than \$100,000 to our staff's chosen charities, including:

- Angel Flight
- Blue Care
- The Cancer Council Queensland
- Greening Australia
- Hannah's House
- Hear and Say Centre

These charities were selected through a collaborative process involving presentations, staff survey feedback and committee meetings, and represent a range of national, state-based and local charity groups. While some charities are well-known to CS Energy staff through local or regional fundraising initiatives such as Australia's Biggest Morning Tea (Cancer Council), Greening Australia and Hannah's House, others such as Angel Flight and Hear and Say Centre will be new beneficiaries.

In March we continued our support for the Shave for a Cure fundraiser to raise money for the Leukaemia Foundation. Staff from Swanbank and Callide participated in the annual World's Greatest Shave for a Cure event, raising more than \$4,000 for this great cause.

Callide staff also supported Anglicare's Adopt-A-Family Christmas Appeal again in 2007 where local disadvantaged families are "adopted" by various community groups or individuals. This is the second successful year Callide has been involved in the program.

#### Looking forward 2008/2009

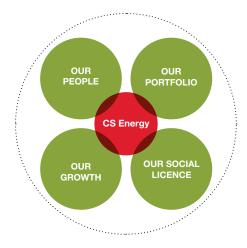
Establish baseline corporate social responsibility measure.

Establish the **Generosity** workplace giving program across the portfolio.

# **Corporate Governance Report**

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# Corporate Governance Report



Our corporate scorecard guides us, providing the framework for achieving our goals and measuring our progress.

Effective corporate governance is vital to our commercial performance and a key requisite for our continued growth and success.

CS Energy has a comprehensive series of policies, procedures and guidelines relating to corporate governance to ensure we maintain the highest standards of ethics, efficiency, and financial and risk management.

#### **Corporate Governance Framework**

CS Energy was established in 1997 under the *Government Owned*Corporations Act 1993 (GOC Act) and is incorporated as a public company, subject to Corporations

Law. Shares in CS Energy are held by two state Government Ministers on behalf of the State of Queensland.

At 30 June 2008 these Ministers were:

- Queensland Treasurer, The Honourable Andrew Fraser MP, and
- Minister for Mines and Energy, The Honourable Geoff Wilson MP.

The cornerstone of our corporate governance framework is our Corporate Governance Charter, which reflects the objectives outlined by the ASX Corporate Governance Council's principles of Good Corporate Governance and Best Practice Recommendations. Our Corporate Governance Policy can be found on our website ...

Responsibility for ensuring we practise good corporate governance rests with our Board.

#### The Board

Our Board comprises seven, independent, non-executive directors appointed by the Governor in Council under the *GOC Act*. The Board is responsible for setting strategic direction, reviewing and approving plans by the Executive Management Team, monitoring corporate performance, managing risk and upholding the Company's Code of Conduct, which can be found on our website .

A key responsibility of our Board is reporting to shareholding Ministers on CS Energy's performance against the objectives set out in our annual Statement of Corporate Intent (SCI).

The Board meets monthly, and more frequently if required, to oversee our operations. We provide an induction manual to all new Board members to ensure they understand their responsibilities, and we arrange site visits and briefings to ensure Directors maintain the knowledge and skills needed to fulfill their roles.

For biographies of our current Directors, please refer to page 65 of this report. There were no changes to the Board in 2007/2008.

Since January 2007, CS Energy has had two registered Company Secretaries, Chris Turnbull and Warren Packer.

#### **Board Committees**

Our Board has established four committees to assist us with the management of particular business areas and provide a forum for our Directors and the Executive Management Team to discuss more complex business issues. All four committees report to the Board.

NAME	BOARD 11 MEETINGS	BOARD RISK COMMITTEE	AUDIT	MAJOR CAPITAL & TECHNICAL	STAFF & REMUNERATION
	TTIVILLTINGS	4 MEETINGS	5 MEETINGS	COMMITTEE 11 MEETINGS	COMMITTEE 7 MEETINGS
Stephen Lonie	11	4	4	11	5
Tim Crommelin	7	3	n/a	n/a	n/a
Julie Leaver	10	4	5	n/a	n/a
Bob Henricks	10	4	n/a	10	n/a
Tony White	10	3	n/a	9	7
Sarah Israel	10	4	5	n/a	n/a
Mark Bucknall	10	3	n/a	n/a	6

#### **Audit Committee**

The Audit Committee assists the Board in overseeing the reliability and integrity of our financial reporting practices, accounting policies, auditing and external reporting. The committee provides advice to the Board on financial statements, financial systems integrity and business risks. It also ensures that we comply with all applicable laws, regulations and Company policies and that an adequate internal control system is in place for areas such as business risk and safeguard of assets. Our Audit Committee Charter can be found on our website 39.

The committee oversees development of the Internal Audit Plan and the results of internal audit activities and recommendations. It is also the primary point of reference for CS Energy's external auditor, the Auditor General of Queensland. The committee accepts reports from the Queensland Audit Office and oversees progress on implementing recommendations flowing from Queensland Audit Office reports, on behalf of the Board of Directors.

The committee meets quarterly and its members are Julie Leaver (Chair), Stephen Lonie and Sarah Israel.

#### Highlights for 2007/2008 include:

- Establishment of a compliance intranet website to reflect CS Energy's compliance processes.
- Continued monitoring of the CS Energy contracting process.
- Audit activity review and comment on year-end accounting requirements
- Comment on CS Energy's physical and electronic safety regime.

#### **Board Risk Committee**

As risk management is a core responsibility of our Board, we have a dedicated Board Risk Committee. This committee oversees our risk management system and ensures compliance with its policies, procedures and legal obligations. The Board Risk Committee Charter can be found on our website 2.

The Committee meets quarterly, comprises all Directors and is chaired by Timothy Crommelin.

#### Highlights for 2007/2008 include:

- Review and comment on CS Energy's eight key risks.
- Continued monitoring of operational risk activity across CS Energy's four operating sites.
- Insurance placement process including strategy for using CS Energy's Protected Cell Captive.
- Pecuniary risk / conflict of interest review and comment.
- Mica Creek load management system review and monitoring.

#### **Staff and Remuneration Committee**

Our Staff and Remuneration Committee provides advice on remuneration policies and practices. It makes recommendations to the Board on negotiation parameters for enterprise bargaining agreements as well as remuneration packages and other terms of employment for our Executive Management Team. The committee ensures employees are fairly remunerated for their work and that we always act in the best interests of our shareholders on remuneration matters.

## Corporate Governance Report continued

Each year, the committee reviews executive remuneration against agreed performance measures. Our Staff and Remuneration Committee Charter can be found on our website .

The Staff and Remuneration Committee meets quarterly and its members are Tony White (Chair), Stephen Lonie and Mark Bucknall.

#### Highlights for 2007/2008 include:

- Review of employee salary system including performance payments
- Comment and review of the process for appointment of new Chief Executive.

# Major Capital and Technical Committee

As we manage a significant capital development program, the Board Major Capital and Technical Committee plays an important role in overseeing our major projects. The committee meets monthly to review progress on major projects and provide technical and commercial advice. Details of the Major Capital and Technical Committee Charter can be found on our website . Its members are Stephen Lonie (Chair), Bob Henricks and Tony White.

#### Highlights for 2007/2008 include:

- Finalising the Kogan Creek
   Power Station construction with
   commercial load being achieved
   on 7 December 2007.
- Overview and comment on CS Energy's involvement in the Callide Oxyfuel Project.
- Overseeing technical improvements for CS Energy's Callide B Power Station at its midlife point.

- Review and monitoring of Callide C boiler performance challenges and improvement strategy.
- Planning and strategic direction for a second unit at Kogan Creek.

#### **Executive Management Team**

Our Board appoints CS Energy's Chief Executive and other members of our Executive Management Team after receiving prior written approval from shareholding Ministers. The Chief Executive is accountable to the Board, and is responsible for managing the performance of the CS Energy business and our Executive Management Team.

#### Appointment of new Chief Executive

In December 2007, Tony Andersen stepped down as Acting Chief Executive of CS Energy and David Brown, General Manager Operations, was appointed as Chief Executive to lead the organisation.

#### Reporting

Our Board regularly reports to its shareholding Ministers to ensure they are informed about the operations, performance and financial position of the Company. CS Energy produces four key documents to report on our performance:

A Corporate Plan that outlines our key strategies and objectives for the next five years and our performance indicators. The plan also provides an industry and economic outlook and the potential impact of these developments on CS Energy.

A **Statement of Corporate Intent** (SCI) outlines our goals and objectives for the next financial year. A summary of the 2007/2008 SCI appears on page 64 of this report.

**Quarterly Reports** of our progress in meeting the performance targets and measures in the SCI.

An **Annual Report** on our performance for each financial year that meets statutory requirements for government-owned corporations and the ASX Corporate Governance Council's *Principles of Good Corporate Governance and Best Practice Recommendations*.

#### **Performance**

The performance of our Board is periodically evaluated at a formal workshop facilitated by an independent corporate governance specialist. In 2006/2007, we implemented the recommendations of a Board Performance Review finalised in July 2006. The review found that our corporate governance processes were sound and suggested improvements to executive succession planning, key stakeholder communication processes and Director professional development. This year, we conducted the review in June 2008, and the recommendations will be reported and implemented in 2008/2009.

#### **Risk and Assurance**

Our Board has ultimate responsibility for managing potential risks for CS Energy and ensuring we comply with relevant laws, regulations and policies. CS Energy employs an internal Risk and Assurance function to oversee this activity and report to the Board and management. The Risk and Assurance Team reviews our activities, information and records to ensure that:

- Financial and operational information is reliable.
- Compliance with laws, regulations, policies and procedures occurs.

- Business risks are identified and appropriate management plans are adopted.
- Procedures are in place to safeguard assets and revenue, and ensure effective use of resources.

Our risk management framework is designed to ensure all potential financial, operational and other risks are identified, assessed, monitored and reported to the Board.

The Board Risk Committee oversees our risk management framework and responsibilities which are outlined earlier in this section. The Board's responsibilities in this area are facilitated by the work of the following two management committees that report to the Board Risk Committee:

#### **Risk Coordination Committee:**

meets on a quarterly basis to coordinate responses to market and operational risks as they arise.

# Market Risk Management Committee:

monitors market risk on a monthly basis and recommends appropriate systems and controls to manage those risks.

CS Energy's Risk Management Policy provides guidance for the Board and staff on our risk management approach. Our staff are required to conduct all business activities in a manner that complies with the law, and within Board-approved limits of authority.

#### Highlights for 2007/2008 include:

- Overview and comment on CS Energy's Electricity Market Risk Policy.
- Review by Ernst & Young of CS Energy's pecuniary interests and share trading processes with consequent discussion and advice.
   An annual routine audit of processes in these areas was conducted, and CS Energy's systems and processes were found to be sound.
- Strategy development with CS Energy's Protected Cell Captive Insurance Company, EnMach.

#### **Climate Change**

Climate change is quickly becoming a business risk for the energy sector. Under the *National Greenhouse and Energy Reporting Act* (Cth) (NGER Act), CS Energy will be required to extend its greenhouse and energy reporting obligations, and provide details of the Company's climate change risks and responsibilities in its 2008/2009 Annual Report.

CS Energy notes climate change may affect the Company's financial position, operations and business strategy. This year, CS Energy has reported on a new carbon strategy for the Company. The introduction of an emissions trading scheme in 2010, other regulatory responses of government to climate change, and adverse effects of variable weather will all affect CS Energy's business and future growth.

#### **Ethical and Responsible Behaviour**

We are committed to conducting all business activities with integrity, honesty and in compliance with relevant laws and standards. Our staff and the Board act in accordance with the CS Energy Code of Conduct , which outlines our principles for conducting our business in an ethical and responsible manner. The Board has also adopted the Directors' Code of Conduct from the Articles of Association of the Australian Institute of Company Directors.

To ensure compliance and prevent conflicts of interest, we have a number of policies and procedures in addition to the Code of Conduct including a Share Trading Policy , Compliance Policy , and a Procedure for Pecuniary Interest, Conflict of Interests and Protected Disclosures , ...

The Share Trading Policy provides guidance on the legal requirements of the *Corporations Act 2001* with respect to inside information and insider trading. The policy requires officers and directors to not engage in share trading transactions with companies with whom CS Energy has a contractual relationship and where the officer could be in possession of pricesensitive information or be placed in a position of a conflict of interest.

We have a standing item on the agenda of the monthly Board meetings for any conflicts by the Board or Executive Management to be declared. Board and Executives are also required to make annual declarations of Companies in which they hold shares, or relationships that have the potential to lead to a conflict of interest. We also commission an external, independent check of these declarations against publicly available databases.

# Corporate Governance Report continued

We encourage staff and Directors to report any conduct they observe that they believe is a potential breach of CS Energy policies or external regulations or laws. The CS Energy Procedure for Pecuniary Interest, Conflict of Interests and Protected Disclosure outlines the process for responding to these disclosures and confidentiality provisions for the individual making the disclosure.

As a Government Owned Corporation, we have an obligation to comply with the requirements of the *Freedom of Information Act 1992* (the FOI Act). CS Energy is exempted under the FOI Act from disclosing documents relating to our commercial activities or our community service obligations under the *Government Owned Corporations Act 1993*.

#### Information and advice

Directors can seek independent professional advice on matters before the Board after receiving approval from the Chair. CS Energy bears the cost of this external advice. Directors can also seek professional information from CS Energy employees, subject to approval from the Chief Executive and attendance by a member of the Executive Management Team.

#### Remuneration

Directors are remunerated at a level determined by the Governor in Council and reimbursed for reasonable expenses incurred while conducting business on behalf of CS Energy.

The Board, in consultation with shareholding Ministers, approves the remuneration levels for the Chief Executive and other members of the Executive Management Team.

Details of remuneration paid to Directors and Executive Management Team members during the year appear in Note 30 of the Financial Statements.

#### **Directions and notifications**

CS Energy received no directions from its shareholding Ministers during the year.

#### **Statement of Corporate Intent**

Under the *Government Owned*Corporations Act 1993, CS Energy is required to prepare a Statement of Corporate Intent (SCI) each financial year.

The SCI is a performance agreement between CS Energy and our shareholding Ministers and complements our five-year Corporate Plan.

The full SCI, which includes details of our mission, vision, objectives, activities, capital structure and dividend policies, will be tabled in the Queensland Parliament in accordance with Section 132 of the GOC Act.

In summary, the 2007/2008 SCI outlines the following key business objectives:

- Increase the Company's portfolio of generating assets.
- Secure future fuel supplies to facilitate the expansion of existing assets.
- Continue its focus on safety, environment and plant reliability.
- Progress the Callide Oxyfuel Project.

## Directors' Profiles

#### STEPHEN LONIE

B Com, MBA, CA, F Fin, FIMCA, FAICD Chair Director since 1999

Stephen Lonie is an independent management consultant and company director.

His directorships include Grosvenor Australian Investments Limited, Queensland Coal Mining Management Limited, Pioneer Mortgage Services Pty Limited, Figtree Developments Limited and the Brisbane Grammar School.

Mr Lonie chairs CS Energy's Major Capital and Technical Committee and is a member of the CS Energy Audit Committee, Staff and Remuneration Committee and Board Risk Committee

#### **TIMOTHY CROMMELIN**

B Com, ASIA, FAICD

Deputy Chair Director since 1997

Tim Crommelin is Chairman Stockbroking of ABN Amro Morgans Limited, a Member Corporation of the Australian Stock Exchange. Mr Crommelin brings more than 35 years experience in investment, marketing, stockbroking and capital raising to the Board. He holds a commerce degree from the University of Queensland.

His directorships include Australian National University Superannuation Investment Fund, Australian Cancer Research Foundation, Brisbane Grammar School, Abney Hotels Limited and the Queensland Museum Foundation.

Mr Crommelin is a member of the Senate, University of Queensland, and chairs CS Energy's Board Risk Committee.

#### MARK BUCKNALL

BA. LLB. MAICD

Director since 2005

Mark Bucknall is the managing partner of his own legal practice. He came to CS Energy from the Energex Retail Board, where he chaired the Audit Committee and the joint Energex Remuneration Committee. He also served as inaugural chair of the South-East Queensland Regional Electricity Council.

Mr Bucknall's other board appointments include a directorship of Queensland Cruising Yacht Holdings and membership of the Council of the Brisbane North Institute of TAFE. Awarded a Commonwealth sports achievement award for services to Australian Football, he is an active community member and contributes professional support to community legal centres and sporting organisations.

Mr Bucknall is a member of CS Energy's Staff and Remuneration Committee and Board Risk Committee.

#### **BOB HENRICKS**

Queensland Certificate of Competency as Electrical Mechanic (Electrician) **Director** since 1999

Bob Henricks brings more than 40 years of experience to the CS Energy Board.
Mr Henricks has served on the board of AUSTA Electric and chairs the Electricity Supply Industry Superannuation Fund, and two other superannuation funds. He is also chair of Meanderham Pty Ltd, Electro Group Training Qld Ltd and Electro Group Apprentices Qld Pty Ltd.

Mr Henricks is a director of Qld Private
Capital Group Pty Ltd. He chairs the
Queensland Electrotechnology Industry
Training Council, is past State Secretary and
National President of the Electrical Trades
Union and is also a member of the (Australian
Government) Central Trades Committee.
Mr Henricks, who took his apprenticeship at 15,
is still a licensed electrician. He is a member of
CS Energy's Major Capital and Technical
Committee and Board Risk Committee.

#### SARAH ISRAEL

B Bus, FCPA, FAICD

**Director** since 2005

Sarah Israel has extensive experience in project finance, investment banking and regional development and currently has consulting roles in finance projects in Australia and internationally. Her experience also includes time in the mining and minerals processing and oil and gas industries.

Ms Israel is a Director of Queensland Sugar Limited (QSL), Australian Biodiesel Group and ESI Superannuation. She is Chair of the Audit Committees of QSL, ESI Super and Australian Biodiesel. She was previously a director of the Queensland Electricity Transmission Corporation (Powerlink). Ms Israel is a member of CS Energy's Audit Committee and Board Risk Committee.

#### JULIE LEAVER

B Com, FCPA, MAICD **Director** since 1999

Julie Leaver has held senior financial roles in the telecommunications and mining industries with companies listed on the Australian and New York stock exchanges. During her 10 years with Telstra Corporation, Ms Leaver was responsible for preparing the Group's financial statements, annual reports and US prospectus. She was the Telstra Group coordinator of the US prospectus for T2, the second tranche of the sale of the Federal Government's interest in Telstra.

Ms Leaver's experience also extends to 15 years with the former Mount Isa Mines Group (MIM), membership of the Australian Accounting Standards Board and project management and corporate govern ance roles. Ms Leaver chairs CS Energy's Audit Committee and is a member of the Board Risk Committee.

#### **TONY WHITE**

Dip Mech Eng, FIE Aust, Aus IMM, FAIM **Director** since 1997

Tony White is a technical consultant for Itochu Australia Ltd and a Director of Community and Corporate Financial Services Pty Ltd and the Queensland Coal and Oil Shale Superannuation Fund.

He is also Chairman of Copperform Holdings Pty Ltd and was Chairman of CS Energy subsidiary Sigma Process Solutions until its acquisition by Alstom Power Australia in 2003. Mr White has extensive experience in the resources sector, having previously been Executive General Manager, Coal, Copper and Metals Processing with the former MIM Group, where he was able to combine his engineering experience with business development and financial management.

Mr White chairs CS Energy's Staff and Remuneration Committee and is a member of the Major Capital and Technical Committee and Board Risk Committee.

# **Executive Management Team Profiles**

#### **DAVID BROWN**

C.Eng, BSc (Hons)

#### Chief Executive

David Brown is a chartered engineer with more than 25 years experience in the energy industry in the United Kingdom and Australia. Mr Brown graduated with first class honours in a Bachelor of Science degree in natural gas engineering from the University of Salford in the UK. He started his career with British Gas plc before joining Southern Electric plc at a time of significant change in the UK power industry.

In Australia, Mr Brown has worked as a consultant to the power industry and later as General Manager of Bell Bay Power Pty Ltd, a Hydro Tasmania subsidiary company. He was appointed as Chief Executive of CS Energy in December 2007, after joining the Company as General Manager Operations.

#### TONY ANDERSEN

BE, MIE (Aust)

#### Acting Chief Executive and General Manager Major Projects

Mr Andersen has more than 30 years experience in the energy sector. He has worked in management at Tarong, Callide, Swanbank and Queensland's hydro power stations. He was appointed as Acting Chief Executive of CS Energy on 24 May 2007, and retired on 4 July 2008.

As General Manager Major Projects,
Mr Andersen was responsible for the
development of major projects, including the
Kogan Creek Power Project, the Callide Oxyfuel
Project and progress on the Swanbank F Power
Project. He was also a director of Callide Energy
Pty Ltd, Callide Power Management Pty Ltd and
Kogan Creek Power Project Pty Ltd.

#### RICHARD BOYS

BCom, MBA, FCIS

#### Chief Financial Officer

Mr Boys has more than 20 years experience in business management and administration in the resources and energy sectors.

As Chief Financial Officer, Mr Boys is responsible for finance, information technology and business systems. He is also a director of various CS Energy subsidiary companies associated with Mica Creek Power Station, Callide Power Project, Kogan Creek Power Project and Swanbank E Project.

#### **CHRIS TURNBULL**

B Bus, MAICD

# General Manager Corporate Services and Company Secretary

Mr Turnbull has worked in the energy industry in the areas of business management and administration for more than 20 years. He is Deputy Chair of the Electricity Credit Union and a member of that Board's Audit, Risk, and Staff and Remuneration committees.

Mr Turnbull is also Company Secretary for the CS Energy group of companies. As General Manager Corporate Services, he is responsible for market operations, internal audit, legal and corporate administration.

#### **GARY CAMPBELL**

BE (Elect

#### **General Manager Operations**

Mr Campbell has more than 30 years in the energy sector in Australia and New Zealand. He has held positions of Station Manager of New Plymouth and Huntly Power Stations and Chief Executive of Waitaki Power in New Zealand. He was General Manager Operations in the newly corporatised Tarong Energy from 1999. Mr Campbell joined CS Energy in 2004 as Site Manager at Callide Power Station and was appointed to the General Manager Operations role in April 2008.

In his role he is accountable for the overall performance of CS Energy's generation assets at Callide, Swanbank, Kogan and Mica Creek.

#### **JOHN JAMES**

BE, Grad Dip (Automatic Control), Grad Dip (Management), GAICD

#### General Manager Portfolio Services

John James has almost 30 years experience in the power generation sector. He has worked at power plants in Australia and overseas, including Gladstone Power Station, Killingholme Power Station in the United Kingdom and most recently, CS Energy's Swanbank Power Station at Ipswich, where he held the position of Site Manager for five years.

As General Manager of the Portfolio Services team, John is responsible for asset management, overhauls, projects and high level technical support to CS Energy's portfolio of plant, as well as the procurement, environment and chemistry functions.

#### BILL ANDREW

ВА

#### General Manager Organisation Development

Mr Andrew has more than 20 years experience in organisational and individual development, change management and strategic planning. He has worked with a range of public and private sector companies throughout Australia and New Zealand in a consulting capacity, including BHP Billiton, Brisbane City Council, Bougainville Copper and Tarong North. Most recently, he was based in Canberra as General Manager Organisation Development, CSIRO Sustainable Ecosystems.

In his role at CS Energy, Mr Andrew is accountable for the human resources, industrial relations, occupational health and safety, and marketing and communication functions and has a wider role in organisation change and development.

# GLOSSARY AND ABBREVIATIONS

Term	Definition
2P	Proven and probable gas reserves (50 per cent chance of being recovered).
3P	Proven, probable and possible gas reserves (10 per cent chance of being recovered).
Availability	A measure of a generator's capacity to achieve full load. This measure takes into account both planned and forced outages.
CO2CRC	Cooperative Research Centre for Greenhouse Gas Technologies
Energy sent out	The amount of electricity sent to the grid.
Gearing	A financial term that describes the relationship between debt and equity
GEC	Gas Electricity Certificate
GW	Gigawatt (One GW = one thousand megawatts)
GWh	Gigawatt hour
Greenhouse intensity per energy sent out (tCO <sub>2</sub> -e/GWh)	Emissions of CO <sub>2</sub> per gigawatt hour of energy sent out
ISO14001	International Standard for Environment Management Systems
Lost time injury	A lost time injury is an occurrence that results in time lost from work of one shift or more, not including the shift in which the injury occurred.
LTIFR	Lost Time Injury Frequency Rate. The number of lost time injuries per million hours worked by employees and contractors. (Calculated on a 12 month moving average.)
ML	Megalitre (One MW = one million litres)
MW	Megawatt (One MW = one million watts)
MWh	Megawatt hour
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
PAT	Profit after tax
PEL	Petroleum Exploration Licence
PPA	Power Purchase Agreement
Pool price	The variable market price for electricity
Reliability	A measure of a generator's capacity to achieve full load when plant is not undergoing a planned outage.
ROPA	Return on productive assets
SAP	Systems Applications and Products software
SCI	Statement of Corporate Intent
TJ	Terajoule (one TJ = one million megajoules)
Water use intensity	Water use per gigawatt hour of energy sent out to the grid

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#### **OPERATIONS**

#### **Callide Power Station**

PO Box 392 Biloela Queensland 4715 Telephone +61 7 4992 9329 Facsimile +61 7 4992 9328

#### Mica Creek Power Station

PO Box 1077 Mailing Distribution Centre Mount Isa Queensland 4825 Telephone +61 7 4740 0700 Facsimile +61 7 4740 0710

#### **Swanbank Power Station**

Mail Service 460 Ipswich Queensland 4306 Telephone +61 7 3810 8800 Facsimile +61 7 3810 8777

#### Kogan Creek Power Station

PO Box 41 Brigalow Queensland 4412 Telephone +61 7 4665 2500 Facsimile +61 7 4665 2599

