



Generosity means a world of sound for Alyssa

CS Energy is helping Mount Isa's Alyssa Smith to access a world of sound and speech, through a workplace giving partnership with the Brisbane-based Hear and Say Centre.

Alyssa was diagnosed with a severe to profound hearing loss when she was 14 months old. She received a cochlear implant and began the Hear and Say Centre's outreach program, via webcam, to help develop her speech and language.

Alyssa graduated from the program in 2008, and started Grade 1 in Mount Isa in the following year.

The Hear and Say Centre was one of six charity partners chosen by CS Energy staff for its workplace giving program, Generosity.

In 2008/2009, CS Energy staff raised more than \$120,000 for these organisations, to continue to provide much-needed services to the communities in which we operate.



Earning trust

CS Energy is operating in a rapidly changing environment. As society moves towards greater social and environmental consciousness, the Company's stakeholder expectations continue to grow. It sees its social licence as one of the foundations of a successful future for CS Energy. A social licence is earned, not bought, and it aims to balance its social, environmental, ethical and economic risks to ensure it retains the trust of its stakeholders.

The Company's social licence is built on the trust of its stakeholders – those individuals and groups who are affected by, or have an interest in, its operations, including:

- Current and future employees;
- Contractors;
- Customers;
- Shareholding Ministers and their departments;
- The local communities in which it operates;
- Unions;
- Suppliers;
- Special interest groups;
- Relevant authorities; and
- Current and prospective business partners.

CS Energy's challenge is to transition to a carbon-constrained environment, strengthen its reputation as a socially responsible corporation, and press for constant transparency and honesty in its governance. By listening and responding appropriately to its stakeholders, and responsibly managing its environmental and social risks, it sets the path for future growth and success.

It strives for first-class environmental stewardship across the Company, and is focused on making continuous improvements in its carbon management, sustainability, environmental performance, community, accountability and corporate governance performance.



Kogan Creek Environmental and Industrial Chemist, Ian Richardson, regularly tests water quality as part of an ongoing environmental monitoring programme.

Carbon and sustainability strategy

Progress 2008/2009

- Developed a five-year carbon management plan and project map to underpin strategic decision making.
- Undertook two pilot carbon footprint audits, covering the corporate offices and Callide Power Station main buildings and ancillary services.
- Established framework for carbon reporting under the *National Greenhouse Energy Reporting (NGER) Act*.
- Undertook its first Corporate Social Responsibility (CSR) audit to benchmark business practices and help implement an action plan to improve the balance of social, environmental and economic goals.
- Supported Earth Hour across all sites and marked World Environment Day with tree plantings at the Kogan Creek and Callide power stations.

Carbon management

The challenge of responding to climate change is the single biggest issue currently facing the energy industry. As a fossil fuel-fired generator, CS Energy is at the forefront of what is set to become a new era for energy generation.

Through its membership of the National Generators Forum and the Electricity Supply Association of Australia, CS Energy is actively contributing to the development of Australia's carbon market.

Under the *National Greenhouse and Energy Reporting Act 2007* (NGER), it is obliged to report emissions, energy consumption and energy production. This information will form a fundamental part of the federal Carbon Pollution Reduction Scheme (CPRS), which is expected to be introduced in 2011. During 2008/2009, CS Energy modified its existing data collection systems to enable reporting under the NGER scheme. It is scheduled to provide its first report to NGER by 31 October 2009.

CS Energy has also been a member of the Australian Greenhouse Office's Greenhouse Challenge Program since 1997. During this time, even though it has added more than 1,000 megawatts of new plant to its portfolio and increased its generation by 73 per cent, it has reduced its carbon intensity by 17 per cent. By increasing the proportion of gas-fired generation in its portfolio, and investing in highly efficient new plant, it has decreased the amount of carbon generated per unit of electricity, from 933 tonnes of CO₂ equivalent per gigawatt hour (tCO₂/GWh) sent out in 2001/2002 to 845tCO₂e/GWh sent out in 2008/2009.

CS Energy plans to continue reducing its portfolio greenhouse intensity, in line with its long-term business objective of achieving a greenhouse emission intensity of less than 400tCO₂/GWh sent out by 2030. To accomplish this, it will have to further increase the proportion of renewable and gas-fired generation in its portfolio as well as keep its focus on efficiency improvements and the development of low-emission technology, such as oxyfuel, for new and existing coal-fired plant.

The Company's Carbon Management Plan, developed during 2008/2009 details how it will continue to develop the business, both under its long-term carbon intensity objective of 400tCO₂/GWh and the impending introduction of the CPRS in 2011. The Plan details initiatives to improve the efficiency of existing plant, trading strategies to ensure it is equipped for a new carbon market, strategies to progress renewable projects (further details of its solar projects can be found on page 40) and a carbon offset project in conjunction with Greening Australia, which is detailed on page 40.

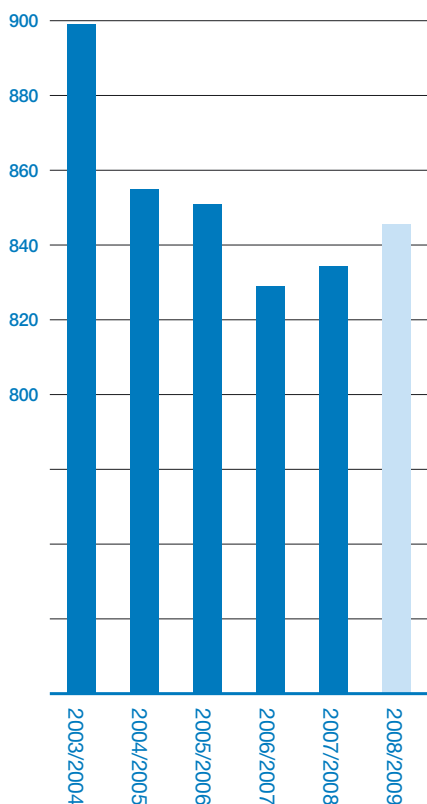
During 2008/2009 CS Energy undertook two pilot carbon footprint audits. These projects will help it better understand its systems and work towards providing relevant and transparent information to its stakeholders.

The first audit was conducted at Callide Power Station, in conjunction with the Queensland Treasury Corporation, to measure the greenhouse gas emissions and energy efficiency of a range of ancillary activities at Callide, including vehicles, rental cars and travel. The audit found that the greenhouse gas emissions from these services totalled 1,044 tonnes of CO₂ equivalent – 58 per cent from electricity use, 26 per cent from vehicles and plant equipment and 16 per cent attributed to airline travel.

Carbon and sustainability strategy (continued)

The second carbon footprint assessment was conducted in June 2009 across the Corporate Offices in Brisbane: Levels 21 and 20 at Central Plaza Two and its office at 82 Eagle Street. This report was prepared by postgraduate students from the University of Queensland, and covered scope one and scope two emissions under the NGER guidelines, including purchased electricity, fugitive emissions from airconditioning, fridges and water coolers and direct fuel usage from fleet cars. This report found that the greenhouse gas emissions from these services totalled 407.78 tonnes of CO₂ equivalent, but do not include airline travel and rental cars as the Callide audit did.

Greenhouse intensity per energy sent out (tCO₂-e/GWh)



In 2009/2010 CS Energy will review the recommendations of these reports and implement an action plan to respond to these audit findings.

Sustainability and corporate responsibility

For CS Energy, sustainability is about efficient and responsible use of resources: minimising its impact on the environment in all stages of the electricity generation process; keeping its employees safe and healthy; improving the lifestyle in the communities where its employees and their families live; and providing its shareholders with a long-term, economically profitable venture.

In 2008, through its involvement with the National Generators Forum, it participated in the development of the Electricity Supply Association's Sustainable Practice Framework. In March 2009, it was a foundation signatory to this Framework, and under this it is obliged to report its sustainability progress against the industry-chosen indicators, which are mapped across the Global Reporting Initiative (GRI) indicators. In the coming year, it plans to produce a Sustainability Review document for the 2008/2009 year, with the aim of setting the systems in place to produce its first Sustainability Report by 2011.

In January 2009, it also undertook its first Corporate Social Responsibility (CSR) audit. This research provided baseline data, benchmarked its business practices against industry standards and helped it develop strategies to better balance its social, environmental and economic goals.

The research was undertaken by an independent consultant and was conducted in two parts; interviews with key stakeholders in each of the four communities in which it operates as well as an independent assessment of its reputation by researchers, using only publicly available information.

While the results revealed pleasing positive relationships with the communities that host its operations, there are also areas that need significant work. Overall, an increase in transparency and greater clarity in articulating the corporate philosophy is required.

A major corporate branding project has been initiated for 2009/2010, including the development of a new website and publication design.

The CSR research also prioritised actions in the coming year, including:

- Increase transparency in its reporting, policies, procedures and operations;
- Focus on a strategic approach to its community contribution and engagement across the portfolio;
- Develop a sustainability assessment process to guide measurement and reporting; and
- Encourage staff involvement in community engagement activities under its workplace giving program, *Generosity*.

In April 2009 the Company joined the Queensland Sustainability Roundtable (SARt), which aims to encourage the sharing of knowledge and lessons learned from experiences and expertise in sustainability practices and processes.

The SARt agenda is determined by members and driven by collective interest and preference. Key areas of focus established for 2008/2009 include:

- Emissions and waste management;
- Cultural change;
- Sustainable planning and design;
- Corporate reporting and benchmarking;
- Input management (water, energy, materials);
- Economic assessment (financial and ecological);
- Innovation;
- Carbon trading schemes; and
- Eco-efficiency.

CS Energy is seeking to establish the principles of sustainability in its procurement activities. During 2008/2009, it worked with other Queensland Government agencies as part of the Sustainable Procurement Electricity Group, to develop a framework to guide sustainable procurement and capabilities.

All CS Energy sites participated in Earth Hour 2009, 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 28 March 2009, it joined people in 62 countries, turning off all its non-essential lighting and equipment at its four power stations and in the corporate office.

World Environment Day in June 2009 was also an opportunity for CS Energy to consider the global impact it has as a business and to show its motivation as individuals. It celebrated the day by planting trees at Kogan Creek and Callide power stations.

Looking forward 2009/2010

- Develop a carbon emission reduction plan, and efficiency improvement strategies, for each site.
- Register under NGERs Act by 31 August 2009, and provide the first report by 31 October 2009, to publicly report its energy production and energy consumption.
- Establish a sustainability steering group to draw together individual sustainability champions and establish a common corporate approach for the Company.
- Develop a sustainability assessment tool to benchmark and measure its sustainability progress against priority indicators.
- Implement a communication campaign to engage management and staff in ways to reduce its environmental footprint.

Environmental performance

CS Energy strives for the highest levels of environmental stewardship across its operations and carefully monitors and manages each of the inputs and outputs of the electricity generation process. It is committed to always seeking to improve its resource management, water conservation and waste management and to reduce its emissions.

Managing resources

CS Energy has a range of systems in place to minimise its impact on the environment:

- Water management – water use is an essential part of electricity generation and an increasingly scarce resource. The Company has several efficiency initiatives at each station, such as dry cooling, recycling and wastewater treatment. For more information on its water management, please see page 34 of this report.
- Emissions – its power stations emit carbon dioxide, nitrous oxides, sulphur oxides and water vapour as a by-product of combusting fossil fuels. For more information on its carbon emissions, see carbon management on page 47 of this report. CS Energy makes data on other emissions from its operations available to the public through the National Pollutant Inventory website at www.npi.gov.au.

- Fly ash emission control – ash is a result of coal combustion and, at Swanbank, Callide and Kogan Creek power stations, 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. At Kogan Creek Power Station the ash will be used in mine rehabilitation. For more information about recycling its ash, see page 35 of this report.
- Flora and fauna – the Company's power stations provide habitats for a variety of wildlife and the evaporation ponds and surrounding buffer zones provide a safe haven for a variety of bird species, koalas, echidnas and kangaroos. It works with local landcare and wildlife groups to protect any flora and fauna on its sites.

Environmental Management System

Each of CS Energy's four operating power stations, and its Corporate Office, operate within an Environmental Management System (EMS). It also has a company-wide Environmental Policy. These systems help it to continually improve its environmental management, understand the impact of its operations on the environment and systematically address risks by developing targets, strategies and action plans to minimise the impact of each site. Its policy and details of its EMS can be found on the website.

All sites except Kogan Creek Power Station are certified to the international standard ISO14001 for Environmental Management Systems. During 2008/2009, CS Energy successfully achieved recertification of the EMS at the Swanbank, Callide and Mica Creek power stations and at the Corporate Office. The new Kogan Creek Power Station developed an initial EMS in advance of operational commencement. However, this has not yet been certified to ISO14001. The Company will apply for certification of the Kogan Creek Power Station system during 2009/2010.

Environmental Performance

CS Energy classes 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 Department of Environment and Resource Management (DERM), and may have resulted in off-site impact.

The Company was disappointed that, during the 2008/2009 year, it recorded eight category 3 incidents. Three leaks from the Mica Creek Power Station effluent pipeline, two ash spills at Kogan Creek Power Station and a fuel oil spill at Callide Power Station were reported to DERM. An inspection of the Swanbank ash dam by DERM identified a fugitive dust release to an adjoining property from ash processing activities by a contractor and a floodwater release from Berry's Lagoon at Swanbank (see details on page 52) was the eighth external incident.

Each of these incidents was fully investigated and remedial action identified and implemented.

Six complaints regarding operations were also received during 2008/2009. Four complaints, relating to wind-blown ash or dust, were received at Callide Power Station, one complaint relating to noise from Callide Power Station operations, and one complaint from a neighbouring industry at Swanbank Power Station regarding the flooding of a pit following heavy rainfall. All complaints were investigated and resolved in conjunction with DERM.

Swanbank Power Station has a pH range specified in its water discharge licence conditions. During the year, this pH range was exceeded a number of times due to algae in the settling pond at the discharge location. This was identified as a seasonal issue and the matter was reported to DERM along with the results of investigations.

The Company has Transitional Environmental Programs (TEPs) in place to improve areas where it has identified environmental issues. During the year, it completed work under a Voluntary TEP at Callide Power Station to upgrade the bund around the Bulk Ignition Oil Facility, which was inspected and approved by DERM in February 2009.

It submitted a TEP to DERM for the Swanbank ash dam, which was approved in October 2008. The TEP extends to August 2010 and authorises ash disposal using dry stacking of ash to create additional capacity and use of a new low-height internal bund. See page 31 for further detail on this project.

Following three leaks from the Mica Creek effluent pipeline and a subsequent leak in early July 2009 it has proposed, in conjunction with DERM, work to upgrade the pipeline. To facilitate completion of the works in 2009/2010, it is expected that a Voluntary TEP will be submitted to DERM for approval.

REPORTABLE ENVIRONMENTAL INCIDENTS*		
YEAR	Number of Category 3 Incidents	Number of Category 4 Incidents
2004-2005	6	0
2005-2006	8	0
2006-2007	1	0
2007-2008	0	0
2008-2009	8	0

* Incidents classed as category 3 or 4, which are reportable to the Department of Environment and Resource Management.

ENVIRONMENTAL INCIDENTS BY SITE 2008/2009		
	Internal (Category 1, 2)	External (Category 3, 4)
Swanbank	11	2
Callide*	57	1
Mica Creek	4	3
Kogan Creek	7	2

* Callide continues to report a high level of internal incidents (72 in 2007/2008). These are mostly minor ash and oil leaks onsite.

Environmental performance (continued)

In April 2009, CS Energy received a Penalty Infringement Notice and a \$2,000 fine from DERM for the unauthorised release of water from the Berry's Lagoon Pumping Station which supplies the Swanbank Power Station. The release occurred as floodwater was being emptied from the pump-pit, following the flooding of the Bremer River at Ipswich. Operating procedures have been updated to address the issues raised by DERM and staff have been advised of the changes.

In April 2009, at the request of CS Energy, DERM amended the Swanbank B Development Approval to clarify ash dam modifications, condition assessments and reporting.

In November 2008, the water level of the Kogan Creek ash disposal facility was above the design storage allowance required by the Development Approval. The facility was under the control of the site EPC contractor at the time, and the contractor notified DERM of the excess stored water and options to manage it. In March 2009, responsibility for the area transferred to CS Energy. A water recovery scheme and evaporation sprays have been installed to reduce the volume of stored water and CS Energy has met with DERM to discuss other options for managing the water level.

Looking forward 2009/2010

- Apply for certification of the Kogan Creek A Power Station Environmental Management System to the international standard ISO14001.
- Progress upgrade of the Mica Creek Power Station effluent pipeline.

INPUTS AND OUTPUTS			
INPUTS / OUTPUTS	2007/2008	2008/2009	% CHANGE
Total energy sent out (GWh)	15,426	16,675	7.8
Coal used (Tonnes)	6,123,291	6,796,117	11
Gas and renewable used (TJ)	34,502	35,129	1.8
Gas and renewable electricity generation (% of portfolio)	24.83	22.05	-11.17
Renewable generation (GWh)	30.93	28.92	-6.51
Greenhouse gas equiv produced (MtCO ₂ -e)	12.87	14.01	8.86
Greenhouse gas intensity (tCO ₂ -e/GWhso)	834.39	845.58	0.53
Water consumption (ML)	25,324	24,201	-4.4%
Ash produced (tonnes)	1,391,951	1,581,248	+ 13.6
Ash sold (tonnes)	106,464	128,487	+20.7

NOTE: The introduction of the coal-fired Kogan Creek Power Station to CS Energy's portfolio has seen increases in total generation, the amount of coal used and the amount of ash produced. It has also seen a decrease in the percentage of gas and renewable generation in the portfolio, and an increase in the total amount of greenhouse gases emitted. However, because of increasing efficiencies across the portfolio, the total greenhouse gas intensity of the portfolio, even with the introduction of Kogan Creek, has remained relatively stable. Because Kogan Creek is dry-cooled, water consumption has decreased.

Community

Progress 2008/2009

- Launched the new Workplace Giving program, *Generosity*, with the workforce raising over \$120,000 for charity.
- Invested an additional \$240,000 in sponsorships and donations in the communities that host the Company's operations.

CS Energy has a range of stakeholders who are affected by, and have an impact upon, its day-to-day operations. It is committed to building lasting and positive relationships with these groups, which include its employees, host communities, government shareholders, unions and suppliers as well as industry peers and regulators.

Stakeholder engagement

In 2008/2009 CS Energy continued its employee survey, *Generating Insight* (for more information see page 18 of this report). It also maintained its program of quarterly staff briefings, giving all CS Energy employees the opportunity to hear updates from, and ask questions of, the executive management team.

CS Energy not only seeks to connect its employees with its business decisions, but also its community investments.

The selection of the new workplace giving charity recipients was a collaborative process, with over seven per cent of employees completing the workplace giving survey and providing feedback on the causes they wanted CS Energy to support.

In January 2009 the Company worked towards establishing a baseline corporate social responsibility (CSR) measure through its first CSR audit, to help it better balance its social, environmental and economic goals. For more information about the audit, the results and the actions it is taking in this area, see page 48 of this report.

During the year CS Energy also continued its face-to-face communication with neighbours and local community members to provide project updates as well as identify, manage and reduce the impacts of its operations. At Swanbank, its Community Reference Group (CRG), run jointly with the site neighbour and ReOrganic project partner Thiess Services, provides a channel for ongoing consultation with the Ipswich community. The group held two open forums in 2008/2009.

At Callide, the Company implemented an active consultation program throughout the year, updating the Biloela community on two major site developments: progress on the Callide Oxyfuel Project and the Callide B dual outage mid-life overhaul. The Callide Oxyfuel Project, a world-leading low-emission coal demonstration project at the Callide A Power Station, commenced on-site work in November 2008. To coincide with this major project milestone, the Callide Oxyfuel joint venture partners also held community information sessions, circulated newsletter updates and invited Australian and Japanese government officials, media and local community members to attend a site function and open day. Over 170 stakeholders attended these launch events. For more information on the Callide Oxyfuel Project, see page 39 of this report.

Community (continued)

In Chinchilla and Mount Isa, the Company continues to keep communication lines open between site and community by attending council and business industry meetings. Additionally, at its Kogan Creek Power Station near Chinchilla, it consulted local schools and the University of Southern Queensland in preparation for the launch of a new school energy program.

Community partnerships and investments

As a major employer in all of the communities that host its operations, CS Energy is focused on making positive and ongoing contributions to these communities. This year CS Energy invested more than \$240,000 in sponsorships and donations.

Moving Opera!

CS Energy and Opera Queensland have partnered for more than seven years to bring the *Moving Opera!* program to its host communities of Ipswich, Chinchilla, Biloela and Mount Isa. The partnership sees Opera Queensland performers work with local students, introducing them to opera and music theatre skills over five days. The week-long workshop culminates in a performance enabling students to perform for their community and raise funds for their schools' music departments. CS Energy's support enables Opera Queensland to offer *Moving Opera!* free of charge to students in these communities. The program is delivered to its host communities biennially, with Chinchilla and Biloela schools participating this year.

Queensland Theatre Company

In 2009 the Company expanded its support of the arts and its commitment to regional development by partnering with Queensland Theatre Company to bring the production *The School of Arts* to Biloela and Chinchilla in August 2009, as part of the Q150 birthday celebrations.

Energise Electrovale school competition

At Kogan Creek A Power Station, the Company is gearing up to launch its new primary school program for the Western Downs Region, Energise Electrovale. This program aims to help upper primary students understand more about the opportunities and challenges surrounding fossil-fuelled and renewable energy power generation.



Biloela students took part in the *Moving Opera!* program in June 2009.

Boonah Arts Festival

CS Energy's three-year sponsorship of the Boonah Arts Festival finished on a high, with Swanbank staff getting behind the 2008 festival theme, 'footprints', by helping Boonah State High School students create an environmentally friendly stage prop, a solar- and human-powered bicycle light show. It also helped the festival organisers, the Boonah Arts Collective, offset 18.6 tonnes of festival CO₂ emissions by investing in Greening Australia's Breathe Easy program.

Business and industry events

CS Energy continued 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 Power Station staff also participated in the Banana Shire Industry Summit and Open Forum in October 2008, which saw key industry leaders discussing current and future activities and needs within the region.

Biloela Comedy and Food Festival and Rockfest

CS Energy continued to support two of the major events on the Biloela calendar: the Comedy and Food Festival, a celebration of food and laughter in Central Queensland, and Rockfest, a showcase of local musical talent. This year, CS Energy and the Rockfest committee are building their partnership and further supporting Biloela musicians by offering local artists professional development workshops run by music industry body QMusic.

Western Games

Mica Creek Power Station partnered with the North Queensland Sports Foundation (NQSF) to launch a new sporting event in Mount Isa, the Western Games. The inaugural multi-sport event was held



Swanbank's Kristy Denniss and Derek Freeman helped Boonah High School students, Anna Betts and Hamish Seagrave, create a solar- and human-powered bicycle for the 2008 Boonah Arts Festival.

in July 2009, with the station's support helping to bring Australian cycling gold medallist and Western Games ambassador, Sarah Carrigan, to Mount Isa for the event.

Philanthropy

In July 2008, the Company launched a new workplace giving program, *Generosity*. In its launch year, it exceeded its \$100,000 donation goal, raising over \$120,000 for several charities. Staff contributions were matched dollar for dollar by the Company.

When Australia was hit by two devastating natural disasters in early 2009, the floods in North Queensland and bushfires in Victoria, the Company's employees rallied

behind the affected communities, making donations through the *Generosity* program. CS Energy matched employee contributions and together \$38,990 was donated to the Red Cross Victorian Bushfire Appeal and \$17,290 to the Premier's Disaster Relief Appeal for flood-affected communities.

In addition to supporting the disaster appeals, the Company's staff provided ongoing support through workplace giving donations to its panel of *Generosity* charities: Angel Flight, Blue Care, The Cancer Council Queensland, Greening Australia, Hannah's House and the Hear and Say Centre.

Community (continued)

The \$60,448 in donations have helped:

- the Hear and Say Centre provide six months therapy for a deaf child;
- Angel Flight provide fuel for several missions;
- Blue Care deliver community health care services in the home;
- Hannah's House expand its safe housing service for disadvantaged young women;
- Greening Australia restore native wildlife and plants through revegetation projects; and
- Cancer Council Queensland with cancer research, treatment and patient care programs.

In addition to workplace giving, the Company's employees participated in a range of community fundraising initiatives, including the World's Greatest Shave, Movember, Cycle for Cancer and the Gold Coast Challenge.

CS Energy also showed its support to community initiatives through its site grant programs. At Swanbank, it increased its focus on community investments through the Swanbank Community Reference Group (CRG), where it awarded over \$5,000 in grants to local not-for-profit groups along with its CRG partner, Thiess Services.

At Kogan Creek, it awarded \$98,000 to Western Downs community groups through the Chinchilla Community Benefits Trust. The trust was established to provide community support during the construction of Kogan Creek Power Station and it continues to be a key focus of the site's community relations commitment. To date, CS Energy has invested \$700,000 through the trust for social infrastructure and community service projects in the region.

Mica Creek Power Station continued its support for a Mount Isa aged care facility, the Laura Johnson Home. The power station donated \$24,000 to help the home purchase new furniture and upgrade its facilities.

Looking forward 2009/2010

- Establish a pilot employee volunteering program as an extension of the workplace giving program, *Generosity*.
- Extend the Energise Electrovale school program to other CS Energy sites.
- Deliver *Moving Opera!* workshops in 2010 in Ipswich and Mount Isa.