

# DELTA ELECTRICITY 2009 SUSTAINABILITY REPORT

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# GRI-1.1

# WELCOME TO DELTA ELECTRICITY'S 2009 SUSTAINABILITY REPORT

**Delta Electricity is a major supplier of energy to the Australian national electricity market. Our primary objective is to operate facilities for efficient, safe and reliable energy production for industry and the community. We recognise the environmental impacts from the use of fossil fuel in power production and are focusing considerable investment into improving our sustainability. This report shows our progress towards meeting our sustainability goals.**

## **Increase production of low carbon emission electricity**

### **Renewables**

The Federal Government has set a target of 20% for renewable energy production by 2020. Delta is responding; our renewable energy production increased by a factor of 16 from last year. This was largely due to the commissioning of two co-generators at Condong and Broadwater that generate energy using biomass fuels, mainly sugar cane waste. This project was developed jointly with the NSW Sugar Milling Co-Operative. It is the largest base-load renewable energy project in Australia, creating the equivalent energy to power 60,000 homes.

Delta is also producing renewable energy by biomass co-firing with coal at our Wallerawang and Vales Point power stations. Our renewable energy production from co-firing is still at a low level but it has increased from last year. We are investigating alternative renewable fuel sources and fuel processing techniques to further increase our renewable energy production.

### **Low-emission gas**

We are installing low-emission, gas-fired peaking generators at Colongra on the NSW Central Coast. With a capacity of 667 MW it is the largest gas-fired plant in NSW. As a peaking generator it will be able to start up quickly to supply electricity during times of high demand and is anticipated to commence commercial operation in December 2009.

Delta is planning for future growth in electricity demand. We gained planning consent for a high-efficiency, low greenhouse emission, combined cycle gas-fired power station

near Nowra and have sought planning permission to build a similar power station at Marulan near Goulburn.

## **Advancing research into the development of sustainable energy**

### **Carbon capture and storage**

Delta has continued to assess carbon-capture and geological storage technology as an emission abatement option for our fossil fuel-fired power stations. Working with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) we have built a pilot-scale research plant at Munmorah Power Station. The experimental program being undertaken there has attracted international interest. The research will assist development of a large-scale demonstration carbon-capture and geological storage plant.

Delta has also hosted an exploratory drilling operation by Industry and Investment NSW at Munmorah. The drilling is part of a statewide program to assess the potential for geological storage of carbon dioxide.

### **University sponsorship**

Delta is sponsoring the Chair in Sustainable Energy Development at the University of Sydney, aimed at developing and implementing sustainable energy solutions. Dr Tony Vassallo was appointed to the Chair in October 2008 and has a strong background in renewable energy technologies, their development and grid integration. In particular, his special interest is in the use of energy storage to facilitate the uptake of renewable energy technologies. Delta believes successful development and integration of storage technologies are essential to achieve reliable, base-load, renewable generation.

## **Engaging with our employees, customers, suppliers and the community**

Delta continues to strongly support the communities where we operate and to consult regularly with them. We support the wider community through our matching donation policy. Our staff is involved in operational and strategic development through our regular consultation processes.

## GRI-1.1

### Welcome to Delta Electricity's 2009 Sustainability Report

Continued

Delta sponsored and supported a range of community events, activities and facilities. We operate community consultative groups of residents and stakeholders that live near our power stations and provide support for indigenous communities by providing Aboriginal or Torres Strait Islander apprenticeships, and by sponsoring events that celebrate indigenous heritage on the Central Coast and in the Western Region.

Through our matching donation policy, we support staff charities. Around \$50,000 was given to several charities by staff through weekly payroll deductions. Money raised for catastrophes such as the earthquake in China and the Victorian bushfires were also matched, totalling around \$75,000.

Employees are involved in developing sustainability strategies as part of several consultative processes. The creation of Delta's Risk Management Plan provided employees with opportunities to identify, assess and report risk within our workplace. The annual strategic plan was formulated in consultation with senior staff. I also met with staff at all work sites and offered them the opportunity to ask questions and raise issues.

Maintaining high safety standards is our most important management objective. Safety systems were improved at all locations. Our lost time injury frequency rate improved, as it has done for the last three years and, importantly, there was a reduction in the severity of injuries being sustained.

### **Adopt measures to respond effectively to a changing operating environment**

#### **Carbon Pollution Reduction Scheme**

The Carbon Pollution Reduction Scheme (CPRS) presents us with a significant challenge. We have examined the implications for our business under a range of scenarios and will continue to monitor the proposed legislation and its implications for our business.

Our response to the CPRS is to manage our greenhouse risk by effective certificate trading combined with developing low-emission technologies as a hedge against the potentially rising cost of certificate liability. We have modelled trading scenarios and developed policies and business systems that

will integrate trading into our business operations when the scheme commences.

Under the current CPRS proposal, and based on current production levels, we will have to purchase approximately 22 million permits each year to cover our greenhouse emissions. We have built, and have started to operate, a portfolio of low-emission generation projects, including renewable energy plants and gas peaking plants.

#### **Changing climate conditions and drought**

The continuing drought has encouraged us to develop alternative methods of supplying cooling water to our plants. A water reclamation plant at Vales Point was commissioned in October 2008, capable of converting up to 230 ML of treated sewage effluent a year for use at the power station. Mt Piper commissioned a second reverse osmosis plant that improved water quality and supply, allowing it to continue operating using the Coxs River as its primary supply. We continue to investigate alternatives to further reduce water consumption particularly in relation to the potable water supplies that we share with the communities in our power station localities.

### **Improving efficiency and reducing waste within the business**

#### **Ash reuse**

Delta continues to focus on ways of utilising ash produced from combustion of coal at our power stations. We currently sell around 18% of the ash; it is used as a supplement in the production of cement. Its use reduces the greenhouse gas emissions from cement production. We increased our sales by 25,000 tonnes from last year, a 20% increase.

We continually look for new ways of using ash. We are very proud of an initiative where ash fill was used to replace crushed sandstone in the foundations of our new gas-fired power station. Construction engineers established that the ash was suitable for the project. An advantage of ash as a foundation material is that it could be placed during wet weather, which would not have been possible with the crushed sandstone. Due to the flexibility of the material, and the energy and cost savings, we plan to expand this potential use of the ash.

## GRI-1.1

### Welcome to Delta Electricity's 2009 Sustainability Report

Continued

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#### Generation efficiency

Generation efficiency is a key measure of Delta's operational performance and also relates directly to our overall greenhouse emission levels. Disappointingly, our generation thermal efficiency declined over the year with a resulting increase in greenhouse emissions per unit of energy.

We commenced several projects to improve the overall efficiency of our portfolio including increasing the capacity of Mt Piper Power Station. As the most efficient coal-fired plant in NSW its extra capacity will displace production from less efficient plants.

#### Reliable supply of electricity

Delta's plants achieved significantly improved performance during 2008-09 with a new production record of 23,765 GWh and an availability rate of 86.8%, a significant improvement over the previous year's result of 77%.

We implemented a series of successful refurbishment outages to improve reliability of our plants. We are on schedule with construction of the Colongra gas-fired power station, which will enhance our capacity to respond to peaks in demand and we used some innovative methods to improve our cooling water supplies.

#### Acknowledgements and thanks

My thanks to all staff for their contributions throughout the year. We all continue to strive to improve the sustainability of Delta's power generation.



**Jim Hennessy**

Chief Executive

# KEY ACHIEVEMENTS

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## Financial performance

- Profit before tax of \$100.7 million

## Plant performance

- High level of production recorded with 23,746 GWh sent out
- Availability improved from 77.0% to 86.8%
- Vales Point Power Station achieved its highest annual production and its highest availability since commissioning

## Plant improvements

- Major life extension refurbishment at Wallerawang Power Station
- Upgraded Mt Piper Power Station's Unit 1 from 660 MW to 700 MW
- Major planned outage at Munmorah to replace all condenser tubes and refurbish the boiler and turbine

## Development

- Australia's largest base-load renewable energy project launched
- Low-emission Colongra gas turbines project exceeds milestones and under budget
- Gained approval for Western Rail Coal Unloader
- Gained approval for Stage 2 of Kerosene Vale Ash Repository

## Environmental management

- Carbon-capture Research Project with CSIRO
- Further reduced use of drinking quality water with water reclamation plant installed at Vales Point Power Station
- Water quality and supply improved for Mt Piper Power Station with second reverse osmosis plant installed
- Retained ISO 14001 compliance, assuring best practice processes in environmental management

## Safety

- Further reduction in lost time injury frequency rate
- Major review of safety isolation procedures

## People

- The total workforce at the end of June 2009 was 741 permanent employees

# GRI-1.2

## DESCRIPTION OF KEY IMPACTS, RISKS AND OPPORTUNITIES

**Delta provides a significant contribution to the economic sustainability of NSW and Australia by supplying reliable, low-cost electricity. This reliable energy supply underpins our high living standards. Electricity is an essential component of modern life and energy consumption at the household level is a key indicator of the standard of living for the residents of a country.**

Our customers expect that we will provide reliable power. The communities in the regions where we operate expect that our plants will enhance their communities and that we will minimise the environmental impacts of our work.

Local communities are sustained by Delta's operations in regional NSW through the direct provision of employment in operating and maintaining our power stations, and indirectly through employment in the mining industries that provide our fuels.

Our business relies on a highly-skilled and educated workforce. Our training programs for employees help to improve the skills and qualifications of the local workforce. The business needs of our power stations also attract skilled people and their families to the regions.

We provide a return to our shareholders, the NSW Government, and so to the people of NSW by selling the electricity on the National Electricity Market.

Our positive social and economic sustainability benefits must be balanced against the environmental impact of our operations including greenhouse gas emissions. Greenhouse emissions from the combustion of fossil fuels are closely linked to global warming. The Commonwealth Government is introducing a Carbon Pollution Reduction Scheme (CPRS), which will cap emissions nationally and allocate a cost to each tonne of CO<sub>2</sub> emitted.

Delta's sustainability challenges are to:

- meet community expectations for a reliable and affordable electricity supply while reducing our environmental and greenhouse impact;
- minimise impact on our shareholders by managing involvement in the emissions trading scheme and continue to provide a sustainable financial return; and
- promote resilience in our workforce by developing workplace skills to adapt to the changing operating environment.

The CPRS has created a high level of uncertainty in the power generation industry because of the constantly changing national and international environmental policies that are driving it. We understand the scheme's broad intentions and objectives but, while the details of the scheme are still being debated, it is difficult to develop and implement business strategies in response to it.

We also recognise that uncertainty must be managed through adaptive strategies that can deal with a future of continuous change. Our developing sustainability strategy aims to make Delta resilient to temporary disturbances, and to make us capable of pre-empting and adapting to longer-term changes in our operating environment.

## GRI-1.2

### Description of key impacts, risks and opportunities

Continued

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Our sustainability strategy, incorporated into the organisation's strategic plan, contains several key objectives:

1. Increase our production of low carbon emission electricity.
2. Advance research into the development of sustainable energy.
3. Engagement with our employees, customers, suppliers and the community.
4. Adopt measures to respond effectively to a changing operating environment.
5. Improve efficiency and reduce waste within the business.

We have set actions and targets to achieve these objectives. Our performance against these targets is published in this Sustainability Report. We will continue to report our performance against these targets in future reports as well as to update the targets as our strategy evolves.

### Reporting

Delta follows the principles of sustainability to balance the environmental, economic, social and corporate governance needs of the business with the objective of protecting the potential needs of future generations.

In 2005, Delta became a signatory to the Energy Supply Association of Australia (esaa) Code of Sustainable Practice. In supporting the industry code, Delta adopted sustainability as a business philosophy and developed policies and implemented practices that ensure our business is managed sustainably.

In 2008, Delta developed its sustainability reporting based on the National Generators Forum (NGF) guidelines that used the Global Reporting Initiative's (GRI) Draft Electricity Utilities Sector Supplement as its basis.

This year, Delta became a signatory to the esaa Code of Sustainable Practice. Delta has now adopted the esaa Sustainability Reporting Framework which is also based on GRI measures.

This year's Sustainability Report will incorporate the new esaa reporting requirements while continuing to report against the amended NGF (and GRI) standards that were established in 2008 as a benchmark.

# REPORTING AGAINST OUR TARGETS

As part of our strategic planning, we set ourselves five key sustainability actions under which we develop our targets.

## 1. Increase the production of low carbon emission electricity.

### Long-term targets

*i) 2,500 GWh of electricity produced from low carbon emission sources by 2012-13, increasing to 11,000 GWh in 2025*

Our production of low carbon emission electricity increased from 11 GWh in 2008 to 118 GWh this year.

Significant steps were made towards meeting the target with the achievement of the following milestones:

Project	Capacity	Status reached in 2008-09
Renewable energy development	68 MW	Broadwater and Condong sugar mills entered commercial service in November 2008
Colongra gas turbines	667 MW	Commenced commissioning activities
Marulan gas turbine facility	450 MW	Planning consent sought for the gas turbine facility
Bamarang gas turbine facility	400 MW	Development consent was received for the gas turbine facility.
Mt Piper Extension	2000 MW	Concept Application lodged with the NSW Department of Planning for development of a high efficiency coal or gas fired power station
Munmorah Power Station Rehabilitation	700MW	Concept Application lodged with the Department of Planning to rehabilitate the power station with improved efficiency

### Target revision

Under the NSW Government energy reforms it is proposed to sell Delta's development sites which would include the Marulan and Bamarang low-emission gas turbine sites. Delta originally assumed inclusion of these facilities within its portfolio in order to achieve its low-emission generation target. As a result of these changes the long-term, low-emission energy production target will be reviewed in next year's report.

*ii) Commence operation of an integrated carbon-capture and storage facility by December 2013*

Delta prepared a project business plan to support the development of a 100,000 tonne per year integrated carbon-capture and storage demonstration project. We have made applications to the NSW Government, Commonwealth Government and Australian Coal Association for funding to undertake project design, seek planning approval and characterise potential deep geological storage reserves.

### Relevant performance indicators

EN1, EN3, EN16, EN18

## Reporting against our targets

Continued

## 2. Advance research and development into sustainable energy.

Targets for 2008-09	Results
Commission the Munmorah carbon-capture pilot plant and commence the experimental program	Achieved
Establish geo-sequestration exploratory bore holes in conjunction with the Department of Primary Industry	Achieved
Implement a governance structure for an integrated carbon-capture and storage demonstration project	Ongoing: a business case defining a structure was prepared and a funding application submitted. Implementation is subject to receiving project grant funding
Complete direct injection feasibility and fuel sourcing studies for large-scale biomass co-firing	Ongoing: studies are underway and the grant funding application submitted
Assess the feasibility of solar thermal concentration technology into the design of the demonstration carbon-capture plant	Achieved
Establish a PhD program within the University of Sydney Delta Electricity Chair in Sustainable Energy Development	Achieved

### Targets for 2009-10

Implement a delivery vehicle for an integrated carbon-capture and storage demonstration
Complete experimental carbon-capture program at Munmorah by June 2011
Complete business case for large-scale biomass co-firing at Wallerawang
Complete pelletised biomass trials at Wallerawang
Develop an effective research program with the Chair in Sustainable Energy Development at Sydney University

### Relevant performance indicators

EU8, EN6

## Reporting against our targets

Continued

### 3. Engaging our employees, customers, suppliers and the community.

Targets for 2008-09	Results
Demonstrate commitment through publishing our sustainability objectives	Achieved
Develop media packages to promote Delta's new generation project credentials	Achieved
Implement a staff awareness program to engage our staff	Deferred: this program is being developed in 2008-09
Undertake a gap analysis of Delta's sustainability plan and implement recommendations in accordance with the approved program	Achieved
Effectively capture stakeholder feedback	Deferred: Delta is reviewing its approach to obtaining stakeholder feedback

#### Targets for 2009-10

Eliminate gaps in Delta's sustainability plan reporting, as measured against the Global Reporting Initiative Guidelines

Achieve at least silver level in the DECCW Sustainability Advantage Recognition Scheme by December 2011

#### Relevant performance indicators

SO1, EU19

### 4. Developing the tools to adapt effectively to a changing operating environment.

Targets for 2008-09	Results
Develop costing for alternative water sources in the Western Region and integrate into a long-term incremental access program	Achieved
Develop a greenhouse response strategy incorporating a policy for government/regulator/industry engagement	Achieved
Enhance Delta's preparedness for an emissions trading scheme (ETS) by developing a market simulation model	Ongoing: this activity is subject to changing scheme parameters
Revise assessment methodology for plant improvement projects in line with emissions trading parameters and plant life expectations	Achieved

#### Targets for 2009-10

Enhance Delta's preparedness for a CPRS by participating in carbon market simulation

Regularly assess the plant required to operate in the market to determine optimal plant line-up

#### Relevant performance indicators

EU8, EN6, LA10, EU14

## Reporting against our targets

Continued

### 5. Improve efficiency and reduce waste within the business.

Targets for 2008-09	Results
Establish a portfolio of plant efficiency improvement projects that are economic under an ETS and prioritise projects for inclusion in the 2009-10 capital program	Ongoing: operational and engineering plant efficiency improvements identified
Implement Green IT and Communications Guidelines to reduce energy consumption	Ongoing: IT equipment recycling implemented
Achieve a minimum 4.5-star energy efficiency rating for the Liverpool Street Corporate Office	The building fit-out achieved a 4-star rating excluding the uninterruptible power supply
Develop and articulate arguments to promote the greater utilisation of ash by-product	Achieved
Develop new ash utilisation contract for Mt Piper with increased flexibility for reuse	Achieved
Establish facilities for the increased reuse of ash from Wallerawang	Ongoing: preliminary assessment of options was undertaken

#### Targets for 2009-10

Review and prioritise the portfolio of plant efficiency improvement projects that are economic under a CPRS

Support programs for developing agricultural and other ash reuse options

#### Relevant performance indicators

EU6, EU30

# GRI-2

## ORGANISATIONAL PROFILE

### GRI-2.1 Name of the organisation

**Delta Electricity**

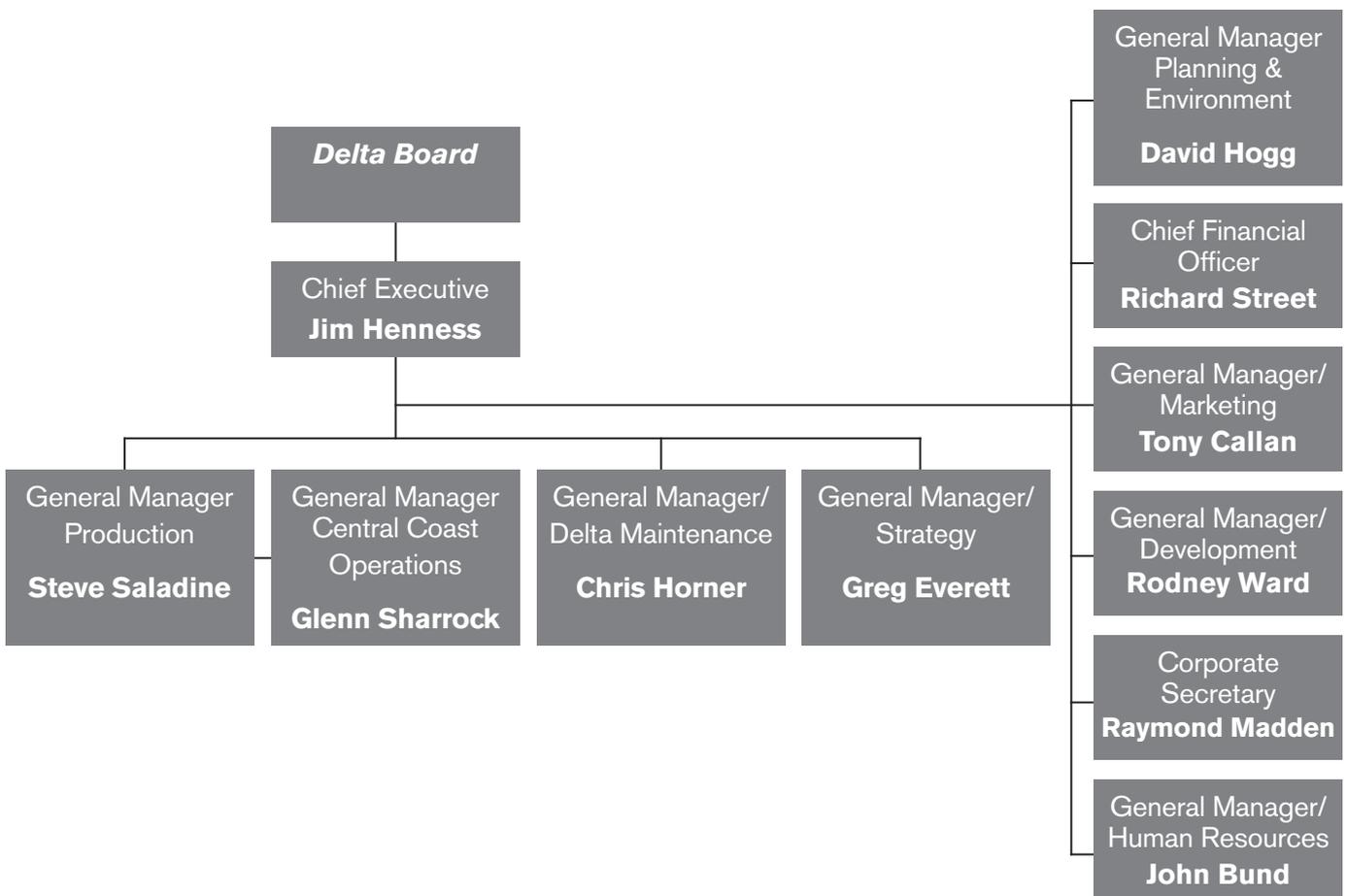
### GRI-2.2 Primary brands, products, and/or services

Delta Electricity is an electricity generation corporation that provides 12% of the electricity for the National Electricity Market, which covers South Australia, Queensland, NSW, Victoria, the Australian Capital Territory and Tasmania.

Generation from the portfolio is co-ordinated, helping Delta maximise efficiencies and respond to market demand and plant changes.

We produce electricity using diverse energy sources including gas, coal and biomass as well as from mini hydro-electric plants.

### GRI-2.3 Operational structure



**GRI-2**

**Organisational profile**

Continued

**GRI-2.4 Location of headquarters**

Delta's corporate headquarters are located on Level 20, 175 Liverpool Street, Sydney.

**GRI-2.5 Area of operations**

Most of Delta's generation occurs at four power stations located in NSW: Mt Piper and Wallerawang near Lithgow, and Vales Point and Munmorah on the Central Coast. These stations have a combined generating capacity of 4,320 MW.

**GRI-2.6 Ownership and legal form**

Delta Electricity operates under the *Energy Services Corporations Act 1995* and the *State Owned Corporations Act 1989*.

The organisation was formed on 1 March 1996 as part of the NSW Government's restructure of the state's electricity industry. This restructure was in response to large-scale changes in generation, transmission and supply of electricity in eastern Australia following a program of competition reform.



## GRI-2

### Organisational profile

Continued

### GRI-2.7 Markets

Australia's National Electricity Market (NEM) was established when Australia's electricity supply industry was restructured in 1996.

In 2008-09, the output from Delta's portfolio of operations was 23,765 GWh, equivalent to 12% of the total generation in the NEM.

Total sales revenue for electricity output from all facilities was \$983.1 million (reduced from \$1,008 million last year). Additional revenue from renewable products included income from any green premium or market instruments.

### GRI-2.8 Scale of Delta Electricity

#### Number of employees

At the end of the reporting period (June 2009) Delta directly employed 741 permanent employees. There were a further 3,918 contractors inducted to work on our sites during the course of the year.

#### Total Sales Revenues

The total sales revenue for this year was \$983.1 million. Other financial details are available in the Financial Section of the 2009 Annual Report, which is publicly available at [www.de.com.au](http://www.de.com.au)

#### Quantity of products or services provided

Our level of production this year was 23,746 GWh sent out which is sufficient to power three million homes. We returned a before tax profit of \$100.7 million.

#### Total assets

The total assets, current and non-current, are outlined in the 2009 Annual Report and at 30 June 2009 were \$3.3 billion.

### GRI-2.9 Significant changes regarding size, structure or ownership

There have been no significant changes in size, structure or ownership during the reporting period.

### GRI-2.10 Awards received in the reporting period.

### EU1 Installed capacity MW

Location	Capacity
<b>Coal</b>	
Mt Piper	1,400 MW
Vales Point	1,320 MW
Wallerawang	1,000 MW
Munmorah	600 MW
	<b>4,320 MW</b>
<b>Gas</b>	
Colongra gas turbines	667 MW
<b>Renewable</b>	
Mt Piper hydro	0.350 MW
Chichester Dam hydro	0.110 MW
Dungog Water Treatment Plant hydro	0.110 MW
Condong Sugar Mill co-generation	30 MW
Broadwater Sugar Mill co-generation	38 MW
	<b>69 MW</b>
<b>Biomass co-firing</b>	
Biomass operations at Wallerawang and Vales Point involve the addition of biomass materials to the coal being conveyed to the station for combustion. This activity does not change the capacity of the station.	Output for 2008-09 was <b>3.9 GWh</b>

## GRI-2

### Organisational profile

Continued

#### EU2 Net energy output broken down by primary energy source and by regulatory regime

Energy source	Net energy output (MWh)	Regulatory regime
Coal	23,739,178 <sup>1</sup>	NSW
Fuel oil <sup>1</sup>		NSW
Gas	2,935	NSW
Biomass	114,658 <sup>2</sup>	NSW

<sup>1</sup> Included in coal figure above → not able to provide separate figure due to the small volume of fuel oil used.

<sup>2</sup> Includes Delta's share of electricity production from the Sunshine Electricity Joint Venture.

#### EU5 Allocation of CO<sub>2</sub> emission permits

The Commonwealth Government's proposed Carbon Pollution Reduction Scheme (CPRS) will be one of the most far-reaching structural adjustment policy measures ever implemented in Australia. It will substantially increase costs to large emitters of carbon dioxide by requiring them to purchase permits for every tonne of CO<sub>2</sub> released into the atmosphere. The energy generation sector, including Delta Electricity, will be the most heavily impacted by the introduction of this scheme because of its heavy reliance on fossil fuels.

Studies by ROAM, ACIL Tasman and Frontier Economics estimate that generators will forgo close to \$10 billion in earnings over the first 10 years of CPRS. In recognition of the disruption this will cause to the industry, the Federal Government has outlined the Electricity Sector Adjustment Scheme (ESAS) as part of the draft CPRS legislation. This scheme will allocate free permits to generators. The value of the free permits to be allocated is yet to be finalised by the Government. Appropriate permit allocation will ensure a viable investment environment for the power generation industry and will help smooth the transition to a low carbon future.

While the exact number of free permits to be allocated to the sector is under debate, it appears likely that Delta will receive only a small percentage of the total. This is because the allocation process, as proposed under the ESAS, will divide the total pool of permits based on a power station's emissions intensity. This means that the most carbon intensive power stations will receive the bulk of available permits. Delta's power stations on the other hand are, in aggregate, close to the average emissions intensity of power stations in Australia and will therefore receive relatively few free permits.

# GRI-3

## REPORT PARAMETERS

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### GRI-3.1 Reporting period

The Sustainability Report for 2009 reports performance from 1 July 2008 to 30 June 2009.

### GRI-3.2 Date of most recent previous report

The previous report included information from 1 July 2007 to 30 June 2008.

### GRI-3.3 Reporting cycle

Delta reports on its sustainability performance on an annual basis.

### GRI-3.4 Contact point for report queries

The Delta Sustainability Report is compiled by the Sustainability Manager who can be reached on (02) 9285 2700.

### GRI-3.5 Report contents

In 2008, Delta developed its sustainability reporting based on the National Generators Forum (NGF) guidelines that used the Global Reporting Initiative's (GRI) Draft Electricity Utilities Sector Supplement as its basis. Reporting procedures were developed and the 2008 Sustainability Report written to comply with the NGF guidelines and GRI standard. The 2008 Sustainability Report was developed to provide a benchmark level for subsequent reporting.

The reporting procedures developed in 2008 identified data custodians (those responsible for establishing organisation-wide policy, definitions, and rules for the collection and storage of the information) and the data managers (those

responsible for collecting and managing the data) as well as defining how each performance indicator would be measured and reported.

Delta has now adopted the Energy Supply Association of Australia (*esaa*) Sustainability Reporting Framework, which uses a similar method to the NGF by selecting relevant performance indicators from the GRI standard. The *esaa* framework requires a slightly different set of performance indicators to the NGF guidelines.

The GRI Electricity Utilities Sector Supplement has been finalized, updated and has an amended numbering system.

This year's Sustainability Report, therefore, will incorporate the new *esaa* reporting requirements while continuing to report against the amended NGF (and GRI) standards that were established in 2008 as a benchmark.

Delta seeks to maintain its GRI Level B reporting level, which is an international benchmark, with the additional objective of moving to a higher level of reporting through continual improvement.

### GRI-3.6 Report boundary

The Sustainability Report relates to Delta Electricity, and only to its subsidiaries Delta Electricity Australia Pty Ltd and Mid West Primary Pty Ltd with respect to their inclusion as a consolidated entity in Delta's financial accounts. In the case of Delta Electricity Australia Pty Ltd Delta's share of energy production from the Sunshine Electricity Joint Venture is included with renewable energy data reported in this document.

Delta is an electricity generator and is not reporting on the upstream and downstream impacts of our supply chain.

We are not reporting on the impacts of the supply of fuels or on the delivery issues of supply to electricity retailers, including transmission and distribution losses.

## Parameters

Continued

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### **GRI-3.7 Limitations on the scope or boundary of the report**

This is Delta's second report written to comply with the NGF guidelines. Additional performance indicators have been included to comply with the *esaa* Sustainability Reporting Framework as detailed above. The aim of this report is to report on our progress in achieving our sustainability targets.

We are committed to reporting on the positive and potentially negative aspects of our business to demonstrate our commitment to disclosure.

We have ensured that the report is consistent with the six principles of the Global Reporting Initiative which are described in Appendix 1.

### **GRI-3.8 Joint ventures, subsidiaries and other entities**

This report does not cover the sustainability performance of Delta's subsidiary companies Delta Electricity Australia Pty Ltd (DEA) or Mid West Primary Pty Ltd. However, in the case of DEA Delta's share of renewable energy production from the Sunshine Electricity Joint Venture is included. Note that Delta Electricity's Financial Performance is reported each year on a consolidated basis in Delta's Annual Report.

### **GRI-3.9 Data measurement techniques and calculation methods**

Last year we developed a Data Accountabilities Table (DAT) to identify data managers and data custodians who are accountable for the accuracy of the information. The DAT has been reviewed and amended this year to reflect the changes

needed to comply with the *esaa* framework. The information sources and business systems used are identified to ensure accuracy and consistency. All information in the report is supportable and able to be tracked to source.

### **GRI-3.10 Restatements of information**

Employee compensation for 2007-08 has been restated to \$88,505,000 for comparative purposes due to a change in accounting policy adopted in 2008-09. It was reported in 2007-08 as \$125,684,000.

There are no restatements of information from earlier reports.

### **GRI-3.11 Significant changes from previous reports**

There are no significant changes in the reporting boundaries of this report. However, while the 2008 Sustainability Report was prepared in accordance with the National Generator's Forum (NGF) Environment Working Group Guidelines, this report includes additional performance guidelines to also comply with the *esaa* guidelines (see Report contents above).

### **GRI-3.12 Standard Disclosures**

An index of standard disclosures is provided at Appendix 2.

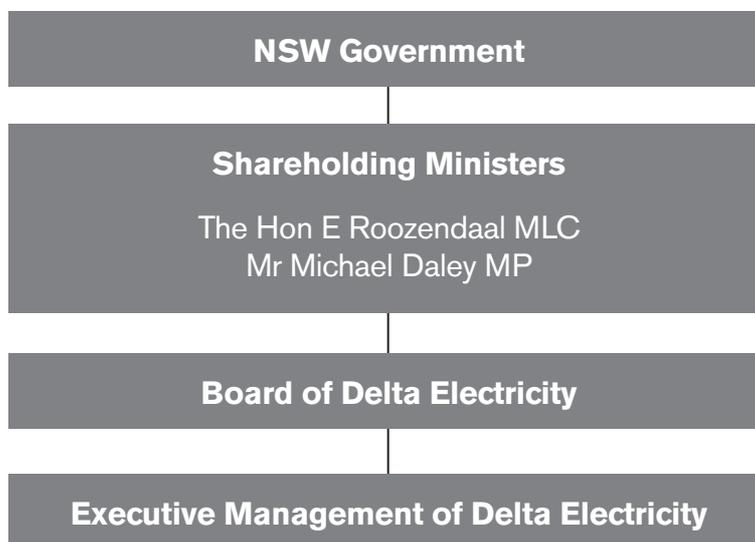
### **GRI-3.13 External assurance**

The contents of this report have not been independently verified.

# GRI-4

## GOVERNANCE, COMMITMENTS AND ENGAGEMENT

### GRI-4.1 Governance structure



#### The Delta Electricity Board

The *State Owned Corporations Act 1989* and the Constitution govern appointment of Directors to the Board. The Delta Electricity 2009 Annual Report provides detailed information on the governance structure of Delta. The following information is included as an overview; if more detail is required, please refer to the Annual Report.

The Directors in office at 30 June 2009 were:

- Peter Young AM, BSc, MBA, Chairman and Director
- Warren Phillips FCPA, FCIS, AIMM, MAICD, Dip Comm, Director
- Sandra Moait, Director
- Michael Knight AO, Director
- Paul Forward BCom, MCom, MSc, Director
- Loftus Harris BA, FAICD, Director
- Jim Henness BSc, BE (Hons), MEngSc, MBA, FAICD, Chief Executive and Director.

#### Meetings of the Board

The Board of Delta Electricity meets monthly, or as required.

Meetings follow set agendas providing all necessary information for informed discussion of important issues. Meetings are held at the corporate office or at a selected power station to allow the Board to visit the operational sites of the business. There are several Board committees in place to deal with particular aspects of Delta's business.

#### Board committees

The three Board committees in place at 30 June 2009 are:

- Board Audit and Finance Committee;
- Board Remuneration and Staff Committee; and
- Board Environment and Occupational Health and Safety Committee.

The Terms of Reference for each Board Committee were reviewed and approved by the Board in May 2009.

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### Governance, commitments and engagement

Continued

#### *Board Audit and Finance Committee*

The Board Audit and Finance Committee provides a forum for communications between the Board, senior management and both the internal and external auditors. It is responsible for the integrity of the internal audit function and ensures that management practices and systems support the effective operation of Delta's risk management strategies, business continuity and fraud control plan. It reviews the adequacy of Delta's short and long-term finance and risk management strategies.

#### *Board Remuneration and Staff Committee*

The primary objectives of the Board Remuneration and Staff Committee are to:

- provide advice to the Board on remuneration and associated issues;
- enhance the independence and objectivity of Board decisions on sensitive commercial and personal issues related to the executive managers of the corporation;
- enable corporate and business strategies and plans, and remuneration strategy and policy to be effectively linked; and
- review processes and controls relating to Delta's remuneration strategy, policy and practices in relation to legal and taxation requirements, corporation reporting obligations and overall corporation policy and direction.

#### *Board Environment and Occupational Health and Safety Committee*

The primary objectives of the Board Environment and Occupational Health and Safety Committee are to assist the Board in discharging its responsibility for compliance with environmental and occupational health and safety policies and legislation.

### GRI-4.2 Governance

Delta Electricity operates under a two-tier system where the executive management team is responsible for day-to-day operations and the Board has responsibility for reviewing and approving strategic direction and major business initiatives and for appointments to the executive management team and executive remuneration.

### GRI-4.3 Independent Board members

The Chief Executive is the only executive member on Delta Electricity's Board. All other Board members are appointed by and are accountable to the Shareholding Ministers.

### GRI-4.4 Staff communications with the Board

#### Board Meetings

Delta's Board meetings are regularly held at the power station sites giving the Board and regional staff the opportunity to discuss matters relating to their local working environment. Executive managers are invited to present directly to the Board on matters for decision relating directly to their region or business unit.

#### Board Audit and Finance Committee

The Board Audit and Finance Committee provides a forum for communications between the Board, senior management and both the internal and external auditors. It is responsible for the integrity of the internal audit function and ensures that management practices and systems support the effective operation of Delta's risk management strategies, business continuity and fraud control plan. It reviews the adequacy of Delta's short and long-term finance and risk management strategies.

#### Managing employee-identified risks

Delta's Risk Management Plan provides employees with a framework for identification, assessment and reporting of risk. Risk management software supports a reporting hierarchy, which allows employees to identify, register and escalate risks for review, comment and action.

The framework allows risk information to be elevated from plant owners to executive staff or the Board, if necessary. Key operational and strategic risks are reviewed and reported monthly to the business unit level and quarterly to the Board.

#### Strategic development

Employees are involved in developing strategies as part of several consultative processes. The annual strategic plan is formulated after consultation with senior staff at the annual planning conference. Before the plan is finalised, a strategic

## GRI-4

### Governance, commitments and engagement

Continued

planning day with Directors and the executive management team is held. The annual planning process also provides a 10-year horizon. Annual asset management reviews are held with senior staff.

#### Compliance planning

Delta has a Corporate Governance and Legal Compliance Plan, based on a compliance management software system that allows business units to centrally register their legal, regulatory and compliance obligations. The system provides escalation rules to ensure that non-compliances and overdue compliance tasks are elevated to senior management for action.

#### Chief Executive presentations

At the bi-annual presentations by the Chief Executive to employees at all work sites, staff are invited to submit questions beforehand with their team leader or to raise issues on the day in direct consultation with the Chief Executive for his response.

#### GRI-4.5 Performance-linked remuneration

The 2008-09 performance payments for executive managers were based on one or more of the following criteria:

- the outcome of performance against a Delta overall balanced scorecard;
- the outcome of performance against business unit-specific balanced scorecards;
- an individual performance payment based on:
  - individual performance; and
  - individual management and leadership performance.

Details of executive remuneration are shown in the Delta Electricity 2009 Annual Report.

#### GRI-4.6 Avoiding conflicts of interest

Delta has a Corporate Governance and Legal Compliance Plan to ensure full compliance with obligations imposed on the organisation and its officers by all relevant legislation, including corporate governance. Delta maintains a register of Directors' interests and this is updated as required with Board members declaring any change in their interests as and when they occur.

#### GRI-4.7 Board selection

Appointment of Directors to the Board is governed by the *State Owned Corporations Act 1989* and the Constitution. The Board of Delta Electricity is composed by the following method:

- the Chief Executive Officer;
- one Director appointed by the voting shareholders on the recommendation of a selection committee comprising:
  - a. two persons nominated by the Portfolio Minister; and
  - b. two persons nominated by the Labor Council of NSW, being persons selected by the committee from a panel of three persons nominated by the Labor Council; and
- at least two, and not more than five, other directors appointed by the voting shareholders, at their discretion.

#### GRI-4.8 Mission statements, codes of conduct and management principles

Delta uses a set of well-defined and established principles to guide strategic decision-making (see above). These include principles which maximise the state's investment, are socially responsible and enable ecologically sustainable development.

Delta as a state-owned corporation is obliged to comply with all statutory requirements set out in relevant legislation, regulations and licences issued by government authorities related to electricity generation.

However, in addition to these statutory requirements, Delta sets its own more stringent environmental targets. These include targets to reduce fuel and water use per unit of production and to manage air and water emissions. We also undertake additional monitoring with the aim of reducing the impact of our operations on the environment and nearby communities.

The ISO 14001 international standard outlines best practice processes to manage environmental impact. A recertification audit was carried out on the Central Coast and the Western Region in 2008 and recertification was achieved.

Delta has a Code of Conduct, which is reviewed at least every two years (like all Delta policies) and was last reviewed in February 2008. The Code of Conduct is designed to help maintain a high standard of conduct and behaviour, as well as

## GRI-4

### Governance, commitments and engagement

Continued

providing a means of dealing with ethical dilemmas that staff members may encounter as they carry out their professional duties. It is designed as a guide to the standards of behaviour expected of Delta Electricity Board members and employees.

#### GRI-4.9 Governance procedures for managing performance

Delta implements its sustainability framework through its strategic and business planning process, which is the organisation's peak planning process. Progress with implementation of strategic objectives is reviewed regularly at executive level and bi-annually at Board level.

#### GRI-4.10 Governance processes for evaluating the Board's performance

The performance agreement between the Board and the Voting Shareholders is in the form of an Annual Statement of Corporate Intent. Quarterly performance reports are provided to the Voting Shareholders with six-monthly meetings arranged to discuss progress against the objectives set out in the Statement. A meeting with the Voting Shareholders is held to discuss and agree each forthcoming Annual Statement.

#### GRI-4.11 The precautionary principle and risk management

##### Precautionary principle

Delta's Sustainability Policy includes a strategic requirement that we act with caution when scientific knowledge is inconclusive and there are risks of serious irreversible consequences.

This is implemented at operational level through the use of environmental management plans, which use risk assessments to assess the impacts of all new operational procedures.

##### Risk management

Delta's Risk Management Plan conforms to Australian Standard AS/NZS 4360:2004 Risk Management. The plan provides Delta's management and employees with policy direction and a framework for identification, assessment and reporting of risk.

The risk management software system provides a hierarchical framework to identify, register and, if necessary, escalate risks to higher management levels for review, comment and action. Key operational and strategic risks are reviewed and reported monthly at business unit level and reported quarterly to the Delta Board.

#### GRI-4.12 Charters, principles or initiatives

Delta is a signatory to the *esaa* Code of Sustainable Practice. Consistent with the code we pursue a wide range of environmental initiatives and participate in various government energy and greenhouse response programs, including the Greenhouse Challenge Program and Generator Efficiency Standards.

The ISO 14001 international standard outlines best practice processes to manage environmental impact. A recertification audit was carried out on the Central Coast and the Western Region in 2008 and recertification was achieved.

Delta uses ISO 9000 as a standard for our quality management systems, which include procedures for key management processes, monitoring processes, record-keeping, maintenance procedures and corrective actions, and to facilitate continual improvement.

Delta Electricity's Risk Management Plan was updated last year and conforms to the Australian Standard AS/NZS 4360:2004 Risk Management.

Delta fully complies with the NSW Government's Waste Reduction and Purchasing Policy (WRAPP). We aim to reduce landfill by about 10% each year in accordance with WRAPP.

#### GRI-4.13 Membership of associations and advocacy organizations

Delta has membership and participates in the:

- Australian Power Institute
- Bioenergy Australia
- Clean Energy Council
- Committee for Economic Development of Australia (CEDA)
- Coal Industry Advisory Board

## GRI-4

### Governance, commitments and engagement

Continued

- CRC for Integrated Engineering Asset Management
- Green Capital
- Energy Supply Association of Australia (esaa)
- Electric Power Research Institute
- Infrastructure Partnerships Australia
- International Council on Large Electric Systems (CIGRE)
- National Generators Forum (NGF)
- Welding Technology Institute of Australia.

### GRI-4.14 Stakeholder groups

Delta seeks to engage with the community on issues that concern our stakeholders. We have identified our stakeholders and seek to address their concerns through a number of channels. The table summarises our stakeholders and their major concerns.

Stakeholder	Concerns and focus	Methods of engagement
Voting Shareholders	<ul style="list-style-type: none"> <li>• Cost and production efficiency</li> <li>• Reliability</li> <li>• Contentious issues including environmental and social impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Formal management arrangements</li> <li>• Statutory reporting</li> <li>• Regular briefings</li> </ul>
Customers (electricity retailers)	<ul style="list-style-type: none"> <li>• Demonstrate professional integrity and expertise</li> <li>• Maintain the highest level of customer satisfaction</li> <li>• Deliver uniquely structured and customised derivative products</li> </ul>	<ul style="list-style-type: none"> <li>• High levels of contact including regular face to face meetings</li> </ul>
Local government and local residential communities	<ul style="list-style-type: none"> <li>• Demonstrate corporate social responsibility including community consultation</li> <li>• Support for local schools, community organisations and public amenities</li> <li>• Noise, water and air quality impacts</li> <li>• New developments</li> <li>• Local employment and apprenticeship opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• The Western Region community consultation forum meets quarterly</li> <li>• The Central Coast community consultation forum, CARE Forum, meets quarterly</li> <li>• Regional sponsorship and donations programs</li> <li>• Free call to recorded information line</li> <li>• Community newsletters</li> </ul>
Staff	<ul style="list-style-type: none"> <li>• Work safety and other working conditions</li> <li>• Negotiation of Delta Employee Enterprise Agreement</li> <li>• Performance and development reviews</li> <li>• Effective internal communication</li> <li>• Training opportunities</li> <li>• Long-term career development prospects</li> <li>• Recruitment and retention</li> <li>• Governance</li> <li>• Impacts of technological change</li> <li>• CO<sub>2</sub> emissions, water use and climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive occupational health and safety policies, practices and communications developed and implemented each year</li> <li>• Management and trade union communications to staff regarding the Enterprise Agreement negotiations</li> <li>• Six-monthly performance reviews undertaken, with online submission of work plans and assessments</li> <li>• Internal communications plan developed annually, and implemented across multiple channels including intranet, weekly staff email, staff newsletter and face to face presentations</li> <li>• Initiatives to improve recruitment, retention, training and options for long-term careers</li> <li>• Engage staff in environmental sustainability initiatives</li> </ul>

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### Governance, commitments and engagement

Continued

Stakeholder	Concerns and focus	Methods of engagement
Wider community	<ul style="list-style-type: none"> <li>Reliability of electricity supply</li> <li>Water use</li> <li>CO<sub>2</sub> emissions</li> <li>Climate change</li> <li>Proposed developments in new areas</li> </ul>	<ul style="list-style-type: none"> <li>Press and broadcast media comment</li> <li>Delta's website content</li> <li>Community consultation including newsletters for local communities</li> <li>Engagement with peak industry and other groups</li> </ul>
Local retailers (and suppliers)	<ul style="list-style-type: none"> <li>Demonstrate corporate social responsibility through support for local chambers of commerce and local business networks</li> <li>Local and regional economy development</li> </ul>	<ul style="list-style-type: none"> <li>Sponsorship of annual business awards in Western and Central Coast regions</li> <li>Direct engagement with business networks in the regions</li> <li>Policies to support regional economic development</li> </ul>
Media – metropolitan and regional	<ul style="list-style-type: none"> <li>Predominantly local operational issues and the wider community impacts</li> </ul>	<ul style="list-style-type: none"> <li>Briefings, interviews and media releases</li> </ul>

#### GRI-4.15 Identification and selection of stakeholders

Delta has a varied set of stakeholders that are identified in the table under GRI-4.14.

Delta Electricity maintains close links with the local communities in which our power stations and major facilities are located. We seek local community members' inputs into decision-making that may impact on their communities.

In 2007, a community consultative group was established in the Western Region so that regular discussions (quarterly) could be held with local residents and other stakeholders with an interest in our operations. A similar group on the Central Coast, the CARE Forum, has met quarterly since its establishment in 1997.

At the meetings of both regional consultative groups, reports are presented on operational and environmental matters and community representatives are invited to raise matters that are of interest to them or to others in their local community. Commonly, reviews of matters are undertaken and, when possible, a new initiative put in place to reduce impacts on local communities. Information about actions taken is then relayed back to stakeholders through community networks.

Since its establishment in 1996, Delta has been providing sponsorship for a wide range of community development activities in both the Western and Central Coast regions.

Grants are made to:

- local government to assist with improvements to local sports playing areas and park facilities;
- local schools for sporting activities and prizes for student achievement;
- Landcare groups for their environmental protection activities;
- local business groups that support regional development;
- other community organisations that enrich local community life; and
- charities which help support families, children, older people and those with disabilities.

Members of staff are encouraged to donate to their preferred charity through a payroll-giving program. A corporate policy provides for a dollar-for-dollar matching donation. In excess of \$50,000 was donated by staff and matched in this way during 2008-09.

## GRI-4

### Governance, commitments and engagement

Continued

A community consultation plan is prepared and implemented for all new development projects. In the past year, community consultations were undertaken as part of seeking approval for the following projects:

- construction of an alternative high voltage connection to the Bamarang gas turbine facility;
- delivery of 12 oversized loads of components for the Colongra gas turbine facility which could cause road closures;
- construction of a gas turbine facility in the Marulan area;
- extension to an ash storage facility known as Kerosene Vale;
- construction of a rail unloader at Mt Piper;
- extension of Mt Piper Power Station; and
- refurbishment of Munmorah Power Station.

#### GRI-4.16 Approaches to stakeholder engagement

Delta's progress towards a long-term sustainable footing requires us to maintain a balance between the demand from the community for a reliable electricity supply and minimising impacts on the environment from the production of this electricity.

Delta's developing sustainability strategy encourages us to listen to the community and to be capable of adapting to its longer-term needs. By listening to our stakeholders we can adapt our management practices to their expectations. The acceptable balance between reliable supply and environmental impact therefore becomes one defined by the community and our stakeholders.

Delta already has many essential elements of a sustainability strategy in place, including strong risk management and governance systems, good shareholder relations and long-term greenhouse emission abatement strategies, including diversifying our portfolio of generation.

Delta proposes to formalise a sustainability framework that aims at greater recognition of the links between our business and the community. The plan aims to inform the community of Delta's sustainability initiatives and formally seek its feedback.

#### GRI-4.17 Key stakeholder concerns

In 2008-09, following investigation and review, responses have been made to the following main issues and concerns:

- water usage, especially during a period of drought, impacting Oberon Dam;
- noise, from conveyors or safety sirens, especially on quiet, still nights;
- perception of impacts of discharges into local water courses and lakes;
- inadequate revegetation of a pipeline route associated with the Colongra gas turbine facility; and
- visual amenity of power stations and ash repositories.

#### Assessing suppliers or contractors against sustainability criteria

Delta's contract specifications include a weighting to encourage the purchase of low waste products or products with a recycled content where they are cost and performance-competitive with non-recycled products. Delta's specifications for works on power station sites include provisions for the implementation of Environment and Waste Management Plans that require the contractor to comply with Delta's policies on environmental management and management of waste streams.

# GRI-5

## MANAGEMENT APPROACH AND PERFORMANCE INDICATORS

### ECONOMIC PERFORMANCE

#### Production

Delta Electricity produced 23,746 GWh in 2008-09, sufficient to power the equivalent of three million homes.

Delta Electricity also continued implementation of its strategies to reduce fresh water consumption with the commissioning, in November, of a water reclamation plant at Vales Point. This plant has a capacity of up to 230 million litres a year, reclaiming treated sewage effluent from the local communities for use in the power station.

Delta's generating portfolio had significantly improved plant performance during the year with plant availability increasing from 77% to 86.8%. Both of the two Western Region power stations, Mt Piper and Wallerawang, undertook major unit outages and other project works in excess of \$90 million, which were completed before the peak summer and winter demand periods.

Our total generating capacity will be increased by 660 MW at the end of 2009 with the commissioning of the low-emission Colongra gas-fired power station on the NSW Central Coast.

#### Market forces

The year was characterised by lower market prices, largely driven by the commissioning of new generating plant in NSW over the summer period. This increase in supply, coupled with slowing demand for energy and mild weather, contributed to spot prices being lower in the second half of the year. With little volatility in the spot market, forward contract prices continued to ease through the year. The announced delay to the start of the Carbon Pollution Reduction Scheme renewed interest in 2010-11 contracts; however, until the market has certainty on both the design and timing of the Scheme, trading activity in the forward years will remain subdued.

Delta Electricity continued to be an active participant in the consultative process of energy policy and regulation development conducted by the energy market's regulatory authorities.

#### EC1 Direct economic value generated and distributed

Delta Electricity is a statutory, state-owned, electricity generation corporation domiciled in New South Wales, operating under the *Energy Services Corporations Act 1995* and the *State Owned Corporations Act 1989*.

It produces electricity sold on Australia's National Electricity Market (NEM).

Economic measure	2007-08	2008-09
Operating revenues	\$1,016,923,000	\$1,004,587,000
Operating costs (excluding financial costs)	\$789,482,000	\$874,549,000
Employee compensation	\$88,505,000 <sup>1</sup>	\$100,138,000
Retained earnings	\$48,534,000	\$Nil
Payments to capital providers and governments (dividends)	In 2008-09, Delta provided for a dividend to its shareholders, representing the NSW Government, of \$124.4 million <sup>2</sup>	In 2009, Delta provided for a dividend to its shareholders, representing the NSW Government, of \$59.2 million

<sup>1</sup> Employee compensation for 2007-08 has been restated to \$88,505,000 for comparative purposes due to a change in accounting policy adopted in 2008-09. It was reported in 2007-08 as \$125,684,000.

<sup>2</sup> 2007-08 is shown as \$124.4 million – it was incorrectly shown as \$124,422 million in the previous Sustainability Report.

#### List donations and other community investments

Each year, Delta provides around \$400,000 in community sponsorship and donations to local government, community organisations, schools and charities in the two regions where our power stations operate. This includes matching donations made by staff to charities and emergency appeals. In 2008, a further \$100,000 in corporate sponsorship was provided to support research bodies, cultural institutions, apprenticeship programs and several industry and environment conferences.

Delta also maintains the Energy Expo located near Mt Piper Power Station, which is a popular destination for school

## Economic performance

Continued

excursion groups. Tours of Mt Piper Power Station are conducted for school groups and interested community members on a daily basis.

### **EC2 Financial implications and other risks and opportunities for the organisation's activities due to climate change**

The impact of climate change on Delta's business is assessed annually as part of the strategic planning process. The main climate change risks we face are reduction in the availability of long-term water supplies for our Western Region power stations and the uncertainty and potential increased costs from the introduction of emissions trading legislation. However, there are opportunities as Delta expands its low-emission generation capacity with the inclusion of more gas and renewable plant.

#### **Physical risks of climate change**

Our Strategic Plan addresses the impacts on our Western Region power stations of reduced fresh water for cooling due to extended drought conditions. We are investigating several options for alternative water supplies including: large-volume extraction of lower quality water from a disused underground mine complex in the Lithgow region; and water reclamation schemes.

Delta's Coxs River storages remained at around 40% of capacity over the year. The Oberon Dam (Fish River supply) continued to fall and by mid-2009 it had reached an historical low of approximately 12% capacity. Our supply was restricted to 40% of the maximum allocation. A second stage of the reverse osmosis plant at Mt Piper was commissioned in June 2009 to ensure continued production at the Western Region power stations. This will allow Mt Piper to continue operation using the Coxs River as its primary supply. In June 2009, State Water sourced additional supply for Wallerawang from the Fish River and this provided some relief for the Oberon storage.

#### **Regulatory risks**

Delta for a long time has recognised that climate change presents us with our most significant challenge. We have examined the implications for our business under a range of scenarios arising from introduction of an emissions trading

scheme. We will continue to monitor the proposed legislation and the impacts on Delta's business. We are also preparing for the introduction of reporting and trading obligations arising from the scheme.

A reporting system has been introduced to ensure compliance with the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), which contains financial penalties for non-compliance. The financial year 2008-09 was the first official reporting period under the NGER Act.

Delta also operates an information system for managing Renewable Energy Certificates (RECs) to ensure compliance with the *Renewable Energy (Electricity) Act 2000*, and the *Renewable Energy (Electricity) Regulations 2001*. This system is also suitable for managing carbon certificates created from the Carbon Pollution Reduction Scheme.

The uncertainty associated with the final form and timing of the CPRS has impacted our forward electricity trading with the announced delay to the start of the scheme creating some renewed interest in 2010-11 contracts. Until the market has certainty on both the design and timing of the scheme, trading activity in the forward years will remain subdued.

#### **Technology opportunities – carbon capture and storage**

In partnership with CSIRO, we constructed a pilot plant at Munmorah and began an 18-month program to test the performance of ammonia-based, post-combustion carbon-capture technology.

We also participated in a pilot-scale carbon-capture project in the United States, sponsored by the Electric Power Research Institute. An exploratory drilling operation was conducted by Industry and Investment NSW at Munmorah to assess the potential for geological storage of carbon dioxide.

In May 2009, the Commonwealth Government announced grant funding for carbon-capture and storage (CCS) projects as part of its Clean Energy Initiative. The CCS Flagships Program provides \$2 billion in funding to support construction and demonstration of large-scale integrated carbon-capture and storage projects in Australia. The target is to create 1,000 MW of low-emission fossil fuel generation.

## Economic performance

Continued

Delta, through the NSW Clean Coal Council, has lodged a funding application to support development of a \$200 million integrated CCS project. The project will be the first in Australia to demonstrate integrated post-combustion capture, transport and permanent geological storage of carbon dioxide from a black coal power station. It will store 100,000 tonnes of CO<sub>2</sub> per year in a saline aquifer. It will provide a roadmap for commercialisation by pioneering development and approval pathways for CCS in NSW.

Large-scale commercialisation of CCS has the potential to provide major reductions of Australia's greenhouse emissions.

### Renewable energy opportunities

The Australian Government has set a target to achieve a 20% share of renewables in Australia's electricity mix by 2020. The Renewable Energy Target scheme guarantees a market for additional renewable energy generation, using a mechanism of tradable renewable energy certificates. Delta will continue to take advantage of the opportunities offered by participation in the renewable energy certificate market by increasing capacity and production from our renewable energy portfolio.

Renewable energy production	2007-08 (MWh)	2008-09 (MWh)
Mt Piper hydro	0	0
Chichester Dam hydro	1	0
Dungog Water Treatment Plant hydro	39	12
Condong Sugar Mill co-generation*	873	58,596
Broadwater Sugar Mill co-generation*	4,107	52,175
Biomass co-firing at Vales Point	1,817	2,565
Biomass co-firing at Wallerawang	123	1,322
<b>Total</b>	<b>6,960</b>	<b>114,670</b>

\* Based on Delta's share of production from the Sunshine Electricity Joint Venture

### Financial implications of climate change for the organisation (e.g. cost of insurance and carbon credits). If quantified, disclose the quantification methodology

The Commonwealth Government's proposed Carbon Pollution Reduction Scheme (CPRS) will be one of the most far-reaching structural adjustment policy measures ever implemented in Australia. It will substantially increase costs to large emitters of carbon dioxide by requiring them to purchase permits for every tonne of CO<sub>2</sub> released into the atmosphere. The energy generation sector, including Delta Electricity, will be the most heavily impacted by the introduction of this scheme because of its heavy reliance on fossil fuels.

Studies by ROAM Consulting, ACIL Tasman and Frontier Economics estimate that generators will forgo close to \$10 billion in earnings over the first 10 years of CPRS. In recognition of the disruption this will cause to the industry, the Federal Government has outlined the Electricity Sector Adjustment Scheme (ESAS) as part of the draft CPRS legislation. The implications of this Adjustment Scheme for Delta are explained under EU4.

### EC4 Significant financial assistance received from government

Delta Electricity is a state-owned corporation and earns its income through selling output to the National Electricity Market. It has not received tax relief or tax credits; subsidies; investment grants, research and development grants or any other relevant type of grant; awards; royalty holidays; or financial incentives and other financial benefits received from any government for any operation.

### Report whether the government is present in the shareholding structure

Delta is a state-owned corporation and is wholly owned by the NSW Government.

### EC6 Policy, practices and proportion of spending on locally-based suppliers at significant locations of operation

Delta's power stations are located in the NSW Western Region and the Central Coast. The regions procure locally

## Economic performance

Continued

for supply contracts less than \$100,000. Corporate management, based in Sydney, administers procurement of supplies and services over \$100,000.

Delta sourced goods and services to the value of \$45 million from locally-based suppliers on the Central Coast and \$10 million in the Western Region. In addition to these purchases, Delta also spends in excess of \$400 million a year on coal purchases in our local regions. This is a major contribution to local employment and the sustainability of local communities.

### **EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement**

#### **Section 96 Environment Protection & Assessment Act 1979, and other contributions made to local communities for infrastructure**

Delta has two projects where local infrastructure investment will provide a benefit. Information about the impacts and benefits is found in the Environmental Impact Assessment undertaken for the major projects.

##### *Bamarang Project*

There were no infrastructure investments this year on the Bamarang Project; however, there are likely to be contributions in 2013-14 for installation of traffic control devices on Yalwal Road. The cost is not estimated at this stage.

##### *Marulan Project*

There were no infrastructure investments this year on the Marulan Project; however, there are likely to be contributions in 2013-14, such as, upgrading of Canyonleigh Road, access road and a range of intersections. The cost is not estimated at this stage.

Environmental assessments were completed for these development projects which included detailed studies of impacts such as visual, traffic, noise emissions to air, and socio-economic. Community needs, made up of individual, infrastructure and other services needs, were determined based on impact level and mitigation requirements.

The works to mitigate the impacts on the communities are either instigated early in the project under the Statement of Commitments and Submissions Report or may be negotiated with the regulatory bodies.

### **EU6 Management approach to ensure short and long-term electricity availability and reliability**

Availability and reliability are two of Delta's key performance indicators and are a central part of Delta's strategic and business planning processes. The recent performance of Delta's plant reflects recent successes resulting from plant maintenance and capital expenditure programs. This was particularly true at Vales Point that achieved record production as a result of high availability.

Measurement	Per cent	
	2007-08	2008-09
Reliability*	87.2	94.3

\* Reliability is reported as 100 minus sum of Equivalent Forced Outage Factor and Equivalent Breakdown Maintenance Factor.

At the strategic and business planning level, Delta's availability and reliability targets are set in consideration of industry benchmark performance sourced from esaa. These targets look ahead 10 years and are linked with the production and budgeting processes. These target levels provide the foundation for asset management strategies which are implemented to ensure that budget scenarios can be met.

### **EU8 Research and development activity and expenditure aimed at providing reliable and affordable electricity and promoting sustainable development**

Our direct investment on research and development activities in 2008-09 was \$3.0 million. This research strategy focuses on improving the reliability of existing power plants and the integration of development of low greenhouse electricity generation technologies into Delta's portfolio.

## Economic performance

Continued

The following activities were undertaken in 2008-09 as part of the strategy:

- Delta continued its program of assessing carbon-capture and storage technology as an emission abatement option for our fossil fuel-fired power stations. In conjunction with CSIRO, construction of a pilot plant at Munmorah Power Station was completed and an 18-month experimental program to test the performance of an ammonia-based post combustion carbon-capture technology commenced. Data from the program will be used to choose technology for a large-scale demonstration carbon-capture and storage plant. We also kept pace with international carbon-capture developments through participation in a pilot plant project in the United States sponsored by the Electric Power Research Institute.
- Delta hosted an exploratory drilling operation conducted by the Department of Primary Industries at our Munmorah Power Station. The drilling was part of a statewide program to assess the potential for geological storage of carbon dioxide.
- A three-year PhD research program was established with the University of Sydney to investigate the application of waste heat from power stations in the post-combustion carbon-capture process.
- Delta participated in an assessment of the feasibility of solar thermal technology. The study identified suitable sites for the development of solar thermal technology in western NSW, although the technology costs are higher than renewables such as wind and biomass.
- Delta is producing small quantities of renewable electricity at our coal-fired generators by co-firing quantities of renewable biomass fuels with coal. The biomass fuel includes sawmill residue (a by-product of sustainable plantation operations) and construction and demolition wood diverted from Sydney landfills.
- We are investigating how to significantly increase our renewable energy production by improved biofuel processing and by expanding the source of sustainable biomass fuel supplies to include energy crops (such as mallee eucalypt plantations and residue from plantation forestry operations).
- Delta also sponsors research into the operation and maintenance of our existing generation fleet with the Electric Power Research Institute, Welding Technology Institute of Australia and Co-operative Research Centre for Integrated Engineering Asset Management. We are also sponsoring a PhD research project into management of trace elements in ash.
- We are very proud of our joint initiative with the University of Sydney to establish the Delta Electricity Chair in Sustainable Energy Development. Dr Anthony Vassallo was appointed to the Chair from a very strong field of candidates. He has worked previously with CSIRO and has consulted to our industry on new energy technologies, the promotion of sustainable energy research and its commercial application. We look forward to collaborating with Professor Vassallo on the further development and implementation of sustainable energy solutions.

### EU11 Average generation efficiency

Generation efficiency	Per cent sent out	
	2007-08	2008-09
Source category – coal	35.0	34.6

Generation efficiency is the ratio of energy leaving the plant to energy source, that is, electricity sent out divided by gross energy going into the plant expressed as a percentage.

### EU30 Average plant availability factor by energy source and regulatory regime (local, state, regional, national)

Plant availability	Average (per cent)	
	2007-08	2008-09
Plant availability – coal	77.3	86.8

# ENVIRONMENTAL PERFORMANCE

## Management approach

Delta's Environmental Management System (EMS) is the foundation of our environmental compliance and risk management. Our EMS is accredited under ISO 14001, an international standard which defines environmental best practice approach.

The Board Environment and OH&S Committee reports environmental performance to the Board every quarter. The Committee's role is to assist the Board in discharging its responsibilities relating to compliance with environmental policies and legislation.

At an operational level, the Executive Environment Committee, which includes the Chief Executive, is responsible for reviewing the performance of the EMS and the organisation's overall environmental performance.

Responsibility for environmental performance, and its continual improvement, is delegated to line managers and, through them, to staff throughout the organisation. All staff are provided with the necessary technical and personal development skills and resources to achieve Delta's environmental objectives.

Key risk management elements of the EMS include:

- a register of environmental legislation and our obligations;
- environmental training from site induction to specialist training;
- performance monitoring using incident reporting protocols and data gathering;
- emergency response procedures including regular exercises; and
- regular environmental risk analysis of the operating power stations.

A surveillance audit was carried out on the Central Coast Region in 2009. All areas assessed during the course of the audit were found to be effective.

## Materials management

Delta is always seeking opportunities to reduce, reuse and recycle waste materials and to convert wastes to useful by-products.

Of particular note this year is the fifty-fold increase in the quantity of materials recycled for use as renewable fuel with the introduction to Delta's portfolio of the sugar mill co-generation plants at Condong and Broadwater, which utilise crop wastes.

## Water use

Water is vital to our operations. Although drought conditions have eased, water must be very carefully managed. The commissioning of a water reclamation plant at Vales Point Power Station in October 2008 allowed us to replace the use of 120 ML of potable water with treated and purified effluent from the local community. We hope to increase this amount significantly next year.

The installation of a second reverse osmosis plant at Mt Piper enables water quality to be maintained. Delta continues to examine the feasibility of harvesting water from alternative sources.

## Emissions, effluents and wastes

Delta is committed to complying with all statutory requirements set out in the relevant legislation, regulations and licences issued by government authorities. These cover the range of activities related to electricity generation including emissions, effluents and wastes.

Delta fully complies with the NSW Government's Waste Reduction and Purchasing Policy (WRAPP) and Sustainability Policy through our Corporate and Operational Standards. These standards define the processes adopted by Delta Electricity that continually review and reduce waste generated at Delta Electricity facilities, and documents responsibilities and accountabilities which ensure operations are in accordance with the appropriate legislation, licences and policies. Delta Electricity's WRAPP Plan applies to all employees and contractors employed at Delta Electricity facilities and sets out the requirements for the management of waste and the purchase of materials at those facilities. Delta Electricity has implemented programs to manage the various waste streams generated at its facilities, which are reported in detail in its biennial WRAPP Report (August 2009).

## Environmental performance

Continued

### Environmental incidents

In May 2009, there was a cooling water discharge from Wallerawang that slightly exceeded the upper pH limit. The incident was reported to the Department of Environment, Climate Change and Water (DECCW). It was corrected by lowering the control set point. To reduce the risk of a reoccurrence, Delta is investigating the feasibility of pH control at the licence discharge point.

### EN1 Materials consumed in production by weight or volume (tonnes, ML or kL)

#### Materials converted to energy

Materials	Weight/volume	
	2007-08	2008-09
Coal (tonnes)	10,251,019	10,295,718
Fuel oil (kL)	14,202	12,470
Gas (GJ)	N/A	130,893
Biomass (tonnes)	1,536	325,484

#### Tonnes of renewable fuels (wood and biomass) used

Renewable fuels	Weight (tonnes)	
	2007-08	2008-09
Sawdust	152	3,325
Construction and demolition (C&D) material	1,384	1,218
Crop wastes (bagasse)*	N/A	276,606
Wood waste*	N/A	44,335

\* Includes Delta's share of fuel used by the Sunshine Electricity Joint Venture.

### Associated process materials

Process materials	Weight/volume	
	2007-08	2008-09
Transport fuels (kL)	1,040	1,055
Lubricants and transformer oils (kL)	72	57
Major process chemicals (top four)		
1. Sulfuric acid (tonnes)	3,226	2,985
2. Sodium hydroxide (tonnes)	1,371	1,485
3. Sulfur (tonnes)	395	375
4. Chlorine (tonnes)	245	206

### EN2 Materials used that are recycled input materials

#### Tonnes and type of recycled materials used (excludes recycled waste water covered in EN8)

Recycled materials used	Weight (tonnes)	
	2007-08	2008-09
Re-refined oil	3,876	5,111
Construction and demolition (C&D) biomass	1,384	1,218
Crop waste (bagasse)	N/A	276,606

#### Percentage of net energy input for fuel materials

Net energy input for fuel materials	Per cent	
	2007-08	2008-09
Re-refined oil, C&D material, and crop waste	0.08	1.1

#### Percentage of total supply by volume or mass for others

Percentage of total supply by volume or mass for others	Per cent	
	2007-08	2008-09
Other fuel materials	0	0

## Environmental performance

Continued

### EN3 Direct energy consumption by primary energy source

Materials	Energy Consumption (GJ)	
	2007-08	2008-09
Coal	248,522,000	251,569,937
Fuel oil	553,000	487,993
Gas	0	130,893
Biomass (co-firing)	22,000	54,241
Biomass (sugar mill co-generation)*	N/A	3,049,135
Mine methane	6,360	18,807

\*Based On Delta's share of fuel used by the Sunshine Electricity Joint Venture

### EN6 Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives

Refer to EN18, below. Note that this performance indicator was not included in last year's report.

### EN8 Total water withdrawal by source

Water used for processing (including use of fresh water in ash handling), cooling and consumption in thermal power plant.

#### Surface water (potable)

Water source	Gross extraction (ML)	
	2007-08	2008-09
Coxs River	19,553	19,024
Fish River	4,367	3,356

### Waste water (non-potable)

Water source	Gross extraction (ML)	
	2007-08	2008-09
Springvale mine water	4,485	545
Treated sewage effluent	N/A	120

### Municipal water supplies

Water source	Gross extraction (ML)	
	2007-08	2008-09
Hunter and Wyong	893 ML	681 ML

### Estuaries and oceans

Water source	Gross extraction (ML)	
	2007-08	2008-09
Lake Munmorah and Lake Macquarie	1,970,000	1,872,000

### Volume of water used/MWh net generation

Region	Volume of water used per kWh (litres)
Western	1.71
Central Coast	0.07

## Environmental performance

Continued

### EN12 Describe significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas

No significant impacts were recorded against Delta in 2008-09.

Delta has investigated options for biodiversity banking or offsets schemes in relation to some of our planned generation development projects.

### EN14 Describe the organisation's strategies, current actions and future plans for managing impacts on biodiversity

Delta has procedures in place to ensure compliance with the *Environmental Protection and Biodiversity Conservation Act 1999*, including obligations in its contracts and works orders to ensure contractor compliance with the requirements of the legislation.

Biodiversity and cultural heritage surveys have been carried out for lands managed by Delta Western and Delta Central Coast.

For new generation projects, assessment of the likely significance of the action on threatened biodiversity must be assessed following the Guidelines for Threatened Species Assessment (Department of Environment and Conservation and Department of Primary Industries).

Delta's assessment standards include the identification of the effects of a proposed activity on all flora and fauna species (including fish and marine vegetation species), populations, ecological communities and their habitats, including effects on Commonwealth listed threatened species, ecological communities and/or migratory species.

Delta Electricity maintains land management plans for all its landholdings consistent with the National Generators Forum Guideline for Land Management. Land management plans are to be reviewed or updated every five years.

For Bushfire Risk Management, Delta's Fire Procedures Manual defines fire regimes appropriate to vegetation community types. The manual is based on available information concerning the site impacts of fire on biodiversity for different vegetation communities and the known fire history.

### EN16 Total direct and indirect greenhouse gas emissions by weight

Emission type	Kilotonnes	
	2007-08	2008-09
Direct (Scope 1 emissions)	21,963	22,258
Indirect (Scope 2 emissions)	34	202

Delta has adopted the National Greenhouse and Energy Reporting (NGERS) protocol for reporting greenhouse emissions.

Scope 1 represents direct greenhouse gas emissions from on-site energy production or other industrial activities. Scope 2 represents emissions from energy that is purchased off-site (primarily electricity, but can also include energy like steam).

Delta does not calculate nor report Scope 3 emissions as the category is less significant for a power generator. Scope 3 includes upstream and downstream emissions including: employee travel, emissions embedded in products purchased or processed by the firm, and emissions associated with transporting and disposing of products sold by the firm.

### Emissions intensity by generation type and CO<sub>2</sub> from fossil fuel generation per MWh net (sent out) fossil fuel generation

Generation type	Emission intensity (kg/MWh)	
	2007-08	2008-09
Fossil fuels	907	937
Other fuels	N/A	N/A

## Environmental performance

Continued

### EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved

#### Initiatives to reduce greenhouse gas emissions and the areas where the initiatives were implemented.

Delta's greenhouse response strategy consists of two key elements:

- effective management of emission permits under the proposed Carbon Pollution Reduction Scheme (CPRS); and
- development and implementation of low-emission generation technologies.

Delta has been preparing for the introduction of the CPRS by modelling industry impacts and trading scenarios, and by developing policies and business systems that will integrate trading into our business operations when the Scheme commences. We have developed a portfolio of low-emission generation projects, including renewable energy plants and gas-fired plants, and are participating in research into carbon capture and storage.

These strategies are creating opportunities for our staff to develop new skills in a range of areas including technology development and trading of financial instruments.

#### *Renewable energy*

##### *Co-generation*

In November 2008, Delta launched the largest base-load renewable energy project in Australia, which is managed in a joint venture with the NSW Sugar Milling Co-Operative. The two 30 MW co-generators installed at the Condong and Broadwater sugar mills generate base-load renewable energy from biomass fuels, mainly the waste from milling sugar cane, putting out sufficient energy to power 60,000 average homes and reducing greenhouse emission of 400,000 tonnes per year.

The phasing out of burning the sugar cane in the fields before harvesting will provide an additional environmental benefit by reducing air pollution and the "black snow" which affected local communities.

##### *Co-firing with biomass*

Delta is producing small quantities of renewable electricity

at our coal-fired generators by co-firing renewable biomass fuels with coal. The biomass fuel includes sawmill residue (a by-product of sustainable plantation operations) and construction and demolition wood diverted from Sydney landfills.

We are investigating how to significantly increase our renewable energy production by expanding the range of sustainable biomass fuels to include energy crops such as mallee eucalypt plantations, and residue from plantation forestry operations.

The environmental benefits of co-firing wood waste include:

- the prevention of the material breaking down to produce methane, a potent greenhouse gas; and
- providing a market for low value wood waste and creating cash flow to recycling businesses which encourages sorting and recovering of wood and timber waste for reuse.

##### *Gas-fired generation*

We are installing low-emission, gas-fired peaking generators at Colongra on the NSW Central Coast. The 667 MW natural gas plant will be able to start up quickly to supply electricity during times of high demand. This plant is expected to commence commercial operation by December 2009.

To prepare for future growth in electricity demand, Delta has gained planning consent for a high-efficiency, low greenhouse emission, combined cycle gas-fired power station near Nowra and has sought planning permission to build a similar power station at Marulan near Goulburn.

##### *Carbon capture and storage*

Delta is investigating and trialling several innovative technologies in preparation for a carbon constrained future. With CSIRO, we have constructed a \$7 million pilot-scale research facility at Munmorah Power Station to test methods for capturing CO<sub>2</sub> from a coal-fired power plant.

The Munmorah pilot project is investigating post-combustion carbon-capture processes under Australian conditions, and is the precursor of a larger carbon-capture and storage demonstration plant which will remove carbon dioxide from flue gas and store it permanently in deep geological structures.

## Environmental performance

Continued

This technology has the potential to be retrofitted to existing coal and gas-fired plant to reduce greenhouse emissions by up to 90%.

This work is complemented by a statewide program for exploring for suitable geological storage sites that is being undertaken by the NSW Department of Industry and Investment.

### Greenhouse gas emission reductions achieved

Initiatives	CO <sub>2</sub> emission reduction (tonnes)	
	2007-08	2008-09
Renewable energy initiatives*	1,536	110,886
Fossil fuel initiatives	0	0

\* Based on NSW Pool Co-efficient for 2009.

## EN19 Emissions of ozone-depleting substances by weight

### Western Region

Ozone depleting substances	Emissions (tonnes)	
	2007-08	2008-09
CFCs	0	0
HCFCs	0	0
Halons	0	0

### Central Coast Region

Ozone depleting substances	Emissions (tonnes)	
	2007-08	2008-09
CFCs	0	0
HCFCs	0	0
Halons	0	0

## EN20 NO<sub>x</sub>, SO<sub>x</sub>, particulate and other significant air emissions by type and weight

### NO<sub>x</sub> (as NO<sub>2</sub> equivalent) in kilotonnes

Region	Total emissions (kt)		Weight per MWh sent out (kg/MWh)	
	2007-08	2008-09	2007-08	2008-09
Western	42.2	36.7	2.91	2.81
Central Coast	26.1	27.0	2.70	2.50
<b>Total</b>	<b>68.3</b>	<b>63.7</b>	<b>2.82</b>	<b>2.67</b>

### SO<sub>x</sub> (as SO<sub>2</sub> equivalent) in kilotonnes

Region	Total emissions (kt)		Weight per MWh sent out (kg/MWh)	
	2007-08	2008-09	2007-08	2008-09
Western	66.5	58.8	4.58	4.49
Central Coast	24.0	26.1	2.48	2.41
<b>Total</b>	<b>90.5</b>	<b>84.9</b>	<b>3.74</b>	<b>3.55</b>

### Total particulates in kilotonnes

Region	Total emissions (kt)		Weight per MWh sent out (kg/MWh)	
	2007-08	2008-09	2007-08	2008-09
Western	2.0	2.0	0.14	0.15
Central Coast	1.0	0.9	0.10	0.08
<b>Total</b>	<b>3.0</b>	<b>2.9</b>	<b>0.12</b>	<b>0.12</b>

## Environmental performance

Continued

### Fine particulate emissions as PM<sub>10</sub> kilotonnes

Region	Total emissions (kt)		Weight per MWh sent out (kg/MWh)	
	2007-08	2008-09	2007-08	2008-09
Western	1.5	1.3	0.10	0.10
Central Coast	0.8	0.5	0.08	0.04
<b>Total</b>	<b>2.2</b>	<b>1.8</b>	<b>0.09</b>	<b>0.07</b>

### Significant other emissions – fluoride (as HF equivalent) kilotonnes

Region	Total emissions (kt)		Weight per MWh sent out (kg/MWh)	
	2007-08	2008-09	2007-08	2008-09
Western	0.3	0.2	0.02	0.02
Central Coast	0.1	0.1	0.01	0.01
<b>Total</b>	<b>0.4</b>	<b>0.3</b>	<b>0.02</b>	<b>0.01</b>

### EN21 Total water discharge by quality and destination

Destination	Treatment method	Is it reused?	Volume (ML)	
			2007-08	2008-09
Coxs River at Wallerawang	pH control	Drinking water and power station extraction	5,476	4,343
Saline ash dam discharges at Lake Macquarie and Lake Munmorah	Settlement	No	25,077	11,761

### Thermal discharges. Hours/year at specified temperatures above background

Station	Operating hours > 35°C (hours/year)	
	2007-08	2008-09
Vales Point	47	42
Munmorah	4	10

### EN22 Total weight of waste by type and disposal method

Delta is always seeking opportunities to reduce, reuse and recycle waste materials and to convert wastes to useful by-products. This year, we increased fifty-fold the amount of recycled materials used as renewable fuel. This is a direct result of the introduction to Delta's portfolio of the sugar mill co-generation plants at Condong and Broadwater that utilise crop wastes.

Information about waste utilisation in the plants is at EN1.

### Total weight of waste by type

Waste type	Waste amount (tonnes)	
	2007-08	2008-09
Hazardous	0	0
Non-hazardous (ash)	2,207,907	3,036,158
Non-hazardous (other solid wastes)	389	347

## Environmental performance

Continued

### Total amount of waste in tonnes by type and disposal method

#### Western

Disposal method	Waste amount (tonnes)	
	2007-08	2008-09
Composting	N/A	N/A
Reuse	190,796	195,344
Recycling	See WRAPP Report	See WRAPP Report
Recovery	N/A	N/A
Incineration	N/A	N/A
Landfill	151	157
Deep-well injection	N/A	N/A
On-site storage (ash)	1,217,856	1,904,850
Other	N/A	N/A

#### Central Coast

Disposal method	Waste amount (tonnes)	
	2007-08	2008-09
Composting	N/A	N/A
Reuse	116,562	141,248
Recycling	See WRAPP Report	See WRAPP Report
Recovery	N/A	N/A
Incineration	N/A	N/A
Landfill	237	190
Deep-well injection	N/A	N/A
On-site storage (ash)	682,694	794,717
Other	N/A	N/A

### EN23 Total number and volume of significant spills

Significant spills, reported as a liability on financial statements (of chemicals, oils or fuels)	Significant spills	
	2007-08	2008-09
Number	Nil	Nil
Volume	N/A	N/A

### EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

#### Monetary values of significant fines for non-compliance with environmental laws and regulations

Significant fines	Events	Monetary value
2007-08	An enforceable undertaking to complete environmental works at Colongra Swamp Nature Reserve in Budgewoi	\$45,000
2008-09	Failure to minimise or prevent the emission of dust from premises in accordance with licence conditions	\$45,000

#### Total number of non-monetary sanctions for non-compliance with environmental laws and regulations

Non-monetary sanctions	Number of cases	
	2007-08	2008-09
Total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Nil	Nil

#### Cases requiring dispute resolution or other settlement such as voluntary environmental offsets

Dispute resolution cases	Number of cases	
	2007-08	2008-09
Cases requiring dispute resolution or other settlement such as voluntary environmental offsets	Nil	Nil

# SOCIAL PERFORMANCE

Delta already has a number of essential elements of a sustainability strategy in place, including strong risk management and governance systems, good shareholder relations and long-term greenhouse emission abatement programs.

The Strategic Plan proposes to formalise a sustainability framework, which aims at greater recognition of the links between our business and the community. The plan aims to inform the community of Delta's sustainability initiatives and formally seek its feedback.

## SO1 Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting

All development in NSW is undertaken under the *Environmental Planning and Assessment Act 1979* (the EP&A Act). The EP&A Act is based on ecologically sustainable development and encourages:

*proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.*

It seeks to promote shared responsibility for environmental planning between different levels of government and to increase opportunity for public involvement and participation in environmental planning and assessment.

In 2009, Delta sought approval for several infrastructure projects under the terms of the EP&A Act, while others are being managed consistent with consent conditions included when the Minister for Planning granted project approval.

Community consultation is an important part of the development approval process and when Delta is seeking approval to build new infrastructure or when our operations may impact on the community, a consultative plan is

developed and implemented. Communications about proposed projects are designed to provide information to interested parties.

As part of development approval, cultural heritage studies may be required. If there is a possibility of indigenous cultural artifacts being in an area, the local Aboriginal land council is consulted and invited to nominate a representative to supervise all activity in the area.

Local government and local Members of Parliament are also contacted to ensure they are aware of developments that may impact on their constituents.

Project approvals describe the measures required for managing:

- impacts on traffic;
- impacts on environment, including water courses, as required;
- operational impacts such as noise mitigation or dust suppression; and
- community complaints.

### 1. Bamarang 400 MW gas turbine facility

Development consent was received. Further consultation was undertaken when an alternative high voltage connection was proposed.

### 2. Marulan gas turbine facility 450 MW

This joint concept with Energy Australia, that also proposes to construct a separate gas turbine facility on an adjacent block of land, required detailed environmental assessments. A community consultation plan was developed and implemented as these proposals were assessed under Part 3A of the EP&A Act.

### 3. Western Rail Coal Unloader

Following a comprehensive environmental assessment and community consultation, approval was granted in June 2009 to construct a new rail coal unloader facility near Mt Piper.

## Social performance

Continued

These infrastructure projects are being assessed and approved at the appropriate level of government under the EP&A Act and are compliant with its requirements.

Project	Impacts of operations on local communities			Data collection defined	Community source of information defined	Negative impacts mitigated
	Prior to entering	While operating	While exiting			
Colongra GT	✓	✓	✓	✓	✓	✓
Bamarang GT	✓	✓	✓	✓	✓	✓
Marulan GT	✓	✓	✓	✓	✓	✓
Glennies Creek hydro	✓	✓	✓	✓	✓	✓
Windamere Dam hydro	✓	✓	✓	✓	✓	✓
Western Rail Coal Unloader	✓	✓	✓	✓	✓	✓

### Practices

#### *Complaints monitoring and tracking*

Delta Electricity's corporate standard outlines a process for the management of all complaints. It requires that all complaints are registered and recorded in detail including the nature of the complaint, its validity and resolution. This register is regularly reported to Delta's Compliance Manager, to the Executive and to the Board Environment, Occupational Health and Safety Committee.

This management process ensures that all complaints are responded to appropriately and promptly. Should an issue result in repeated complaints, it may be raised with the relevant local community consultative group. Up-to-date information is presented to the groups for feedback, and advice on the progress of any operational changes that can be put in place to address the issue is provided at subsequent meetings.

Project approvals stipulate the actions required to manage any community complaints. Construction and operational environment and community management plans are required before projects commence.

#### *Community engagement for ongoing operations*

To assist in the assessment and management of impacts of ongoing operations, Delta has established community reference groups on the Central Coast and in the Western

Region. Both forums are made up of people with links to other local community representative organisations, such as Progress Associations, Tidy Towns and Landcare groups.

The reference groups meet quarterly with senior Delta managers. Agendas are developed collaboratively and usually consist of an operations report, slide presentations on previously agreed topics and community members reporting any matters of interest to them and their neighbours. This can lead to new initiatives to address issues of concern, such as modifications to a coal conveyor to reduce noise impacts. Information about any action taken is then relayed back to wider community networks by the community forum members.

Forum members also identify local community investment opportunities, such as upgrades to local parks and other amenities.

A 1800 recorded information line has been established. In the event of an incident, a message is recorded so that should community members be concerned about unexpected noises or smoke, or sirens from emergency vehicles, they can ring and be advised of the current status of an incident.

The Delta website homepage invites readers to contact us using a feedback facility. The Corporate Relations Manager responds to all enquiries.

## Social performance

Continued

### SO2 Percentage and total number of business units analysed for risks related to corruption

Corruption risk	Percentage (%)	
	2007-08	2008-09
Business units analysed for risks related to corruption	100	100

Delta has established a compliance management system (CMS) to assist staff to comply with legislation and other requirements and laws that apply to their area of operation or management.

Delta has reviewed its operations and identified its key legal risks. All business units have been analysed for key legal risks including fraud and corruption.

We recognise that non-compliance could expose Delta and its employees to significant liability. Therefore all business units have prepared and maintain policies, procedures and standards relating to the minimisation of risk including actions to prevent fraudulent and corrupt behaviour.

### SO3 Percentage of employees trained in organisation's anti-corruption policies and procedures

Anti-corruption training	Percentage (%)
	2007-09
Employees trained in Delta's Code of Conduct policies and procedures*	84

\*Training is undertaken every two years

The Legal and Compliance Manager reviews all new laws, standards and voluntary codes relevant to Delta. He is responsible for consulting with and nominating the business unit affected by them. The business unit is responsible for developing a compliance plan to comply with the laws, standards and voluntary codes.

Compliance plans include processes and procedures developed to control or mitigate these risks and a training component.

Team leaders identify relevant compliance training for their staff. The team leaders also bi-annually review whether the objectives of the training programs have been met. A new computer based training course on fraud and corruption prevention has been developed and will be mandatory for all staff.

### SO4 Actions taken in response to incidents of corruption

Corruption area	Incidents	
	2007-08	2008-09
<b>Employees</b> Total number of incidents in which employees were dismissed or disciplined for corruption	0	0
<b>Business partners</b> Total number of incidents when contracts with business partners were not renewed due to violations related to corruption	0	0
<b>Legal cases</b> Legal cases regarding corrupt practices brought against the organisation or its employees	0	0

### SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations

Fines and sanctions	Monetary value of fines	
	2007-08	2008-09
Offence arising under s 8(2) of the <i>Occupational Health and Safety Act 2000</i>	\$190,000	\$220,000
Offences arising under the <i>Protection of the Environment Operations Act 1997</i>	\$45,000	\$45,000

No non-monetary sanctions for non-compliance were recorded in 2008-09.

## Social performance

Continued

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### **EU20 Contingency planning measures and disaster/emergency management plan and training programs**

#### **Contingency planning**

Delta has a comprehensive Business Continuity Management (BCM) system for developing risk assessments. Ten action plans have been developed to restore normal operations as quickly and efficiently as possible after an emergency.

As a response to the swine flu incidents this year we have amended our pandemic plan responses to comply with the new Australian Pandemic Alert phases.

#### **Emergency Response Plan**

The action plans link with Delta's Emergency Response Plan and are activated during emergency procedures when an incident has escalated to a pre-determined level.

The BCM contains a range of testing strategies from desktop walk-throughs to full-scale disaster simulations involving emergency services.

The BCM is audited every two years. It was independently audited in May 2007 and assessed as "well-managed".

#### **Training**

Online training courses have been developed for general awareness (mandatory for all staff) and specifically for people with designated roles.

# HUMAN RIGHTS PERFORMANCE

## Ethnic affairs priority statement

Our Ethnic Affairs Priority Statement (EAPS) identifies objectives and targets relating to social justice, community harmony and cultural opportunities. While not a direct service provider, Delta draws its employees from the multi-cultural Australian community. We recognise the importance and benefits of cultural diversity to our organisation and the community in general.

Our forward plan includes ensuring the continuance of merit-based recruitment practices and work arrangements that are sensitive to, and accommodate, cultural and religious differences where appropriate.

Delta achieved the outcomes outlined in its EAPS.

## Support for local indigenous communities

Delta has continued its support for indigenous communities. For some years, we have allocated an apprenticeship opportunity in each region for an Aboriginal or Torres Strait Islander. This year, Delta successfully recruited four Indigenous apprentices who were all offered indentured four-year apprenticeships.

Delta continues to provide financial support to the Indigenous community by sponsoring a NAIDOC event on the Central Coast; sponsorship for this year was \$5,000.

Since 2007, a \$2,000 scholarship has been donated to the University of Newcastle for a student from an Indigenous background studying at its Ourimbah Campus, on the Central Coast. The successful applicant, studying a Bachelor of Teaching/Bachelor of Arts, has said that the sponsorship was of considerable assistance in purchasing books and other study material.

## HR4 Total number of incidents of discrimination and actions taken

Number of discrimination claims	Number	
	2007-08	2008-09
Complaints of discrimination lodged against Delta on the grounds of race, colour, sex, religion, political opinion, national extraction or social origin	0	0

# LABOUR AND WORK PERFORMANCE

## Employment diversity

Equal employment principles remain a fundamental platform for our recruitment and work practices. These principles are reinforced through staff induction and ongoing training. All policies and standards governing work are reviewed to ensure alignment with Equal Employment Opportunities (EEO) principles.

Twenty-five per cent of new employees engaged in 2008-09 were female and three apprenticeships were offered to women.

Programs designed to promote accelerated development opportunities and effective leadership capabilities continue.

## Internal communication

A Communication Plan has been established which addresses internal communication protocols and allocates responsibilities for ensuring the dissemination of information across Delta. In addition, Focus Groups were conducted during 2008 to help gauge staff sentiment across a range of work related matters.

The flow of information to staff is maintained through a variety of mediums. This includes presentations by senior staff, regular team meetings, and weekly updates to all staff concerning events and actions impacting upon Delta. All staff are able to connect to Delta's Intranet where they are able to access a range of information and material concerning their employment and Delta's operations.

Delta has maintained a close working relationship with Unions NSW and union representatives during this period, with forums being conducted on a regular basis.

## Safety

Delta continued its program of Safety Excellence with an increased focus on leadership development, reinforcing Delta's commitment to ensuring that everyone is safe at work. This saw an increase in the visibility of executives and managers undertaking safety activities in the workplace. Our lost time injury frequency improved and analysis of all injuries showed a reduction in the severity of injuries.

Delta's behavioural-based safety system, D-ZIP, had its fifth anniversary, which was celebrated with barbecues for all Delta and contract staff. This system has made all personnel that work at Delta more aware of at-risk behaviours.

Safety system improvements achieved during the year included improved OHS auditing, implementation of a new isolation lock-out system, improved disabled access to sites, more usable OHS documentation and improved OHS partnerships with contractors.

The safety of everybody on our power station sites and corporate offices remains the highest priority for Delta Electricity.

## Employee benefits

The Enterprise Agreement for Delta staff expired in March 2009. Negotiations have continued and we anticipate that an agreed position will be finalised during the early part of 2009-10 that will include agreed pay increases for staff.

An electronic performance management system was introduced in July 2008. This has helped to curb delays associated with the previous manual process and will streamline development of future performance agreements. Delta also provides staff with access to a range of other benefits including study assistance, reimbursement of fitness fees and access to a range of salary sacrifice arrangements.

## Skills development

As part of the performance management system used within Delta, regular opportunities are given to staff members to review their skills development.

With a large number of staff nearing retirement age, Delta is closely reviewing its workforce planning requirements to ensure that we have the necessary skills for future needs. This will impact upon future training and recruitment activities.

Delta has continued to support the development of trade-related skills by sponsoring 25 new apprenticeships in the communities surrounding its power stations.

## Labour and work performance

Continued

### LA1 Total workforce by employment type, employment contract and region

#### Employee type and locality

Employee Type	Central Coast	Western Region	Sydney	Total	
				2007-08	2008-09
Full-time	383	289	57	714	729
Part-time permanent	3	5	4	9	12
Part-time trainee (fixed term)	0	0	0	3	0
Casual	6	3	0	9	9
Contract staff (fixed term)	2	0	2	2	4
Temporary university students	7	3	0	7	10
<b>Total</b>	<b>401</b>	<b>300</b>	<b>63</b>	<b>744</b>	<b>764</b>

### EU16 Total sub-contracted workforce

Contract staff	Number*	
	2007-08	2008-09
Number of contract staff inducted to work on power stations	1,958	3,918

\* Based on the number of contractors who have undertaken online induction training.

### LA2 Total number and rate of employee turnover by age group, gender and region

#### Employee turnover rate

	2007-08	2008-09
Turnover rate	5.1%	2.9%

#### Terminations by type

	2007-08	2008-09
Resignations	17	10
Redundancy	3	2
Retirements	11	10
<b>Total</b>	<b>31</b>	<b>22</b>

#### Terminations by gender

	2007-08	2008-09
Males	27	21
Females	4	1
<b>Total</b>	<b>31</b>	<b>22</b>

#### Terminations by age

	2007-08	2008-09
< 18 years	0	0
18 - 30 years	5	3
30 - 50 years	7	5
50 - 65 years	18	14
65 years plus	1	0
<b>Total</b>	<b>31</b>	<b>22</b>

## Labour and work performance

Continued

### Terminations by physical location

	2007-08	2008-09
Munmorah	0	2
Vales Point	14	10
Mt Piper	4	1
Wallerawang	10	5
Sydney	3	4
<b>Total</b>	<b>31</b>	<b>22</b>

### Recruitment

	2007-08	2008-09
Recruitment	49	36
<b>Total</b>	<b>49</b>	<b>36</b>

### Recruitment by gender

	2007-08	2008-09
Males	41	28
Females	8	8
<b>Total</b>	<b>49</b>	<b>36</b>

### Recruitment by age

	2007-08	2008-09
< 18 years	0	0
18 - 30 years	26	15
30 - 50 years	21	20
50 - 65 years	2	1
65 years plus	0	0
<b>Total</b>	<b>49</b>	<b>36</b>

### Recruitment by physical location

	2007-08	2008-09
Munmorah	10	2
Vales Point	16	13
Mt Piper	7	6
Wallerawang	12	11
Sydney	4	4
<b>Total</b>	<b>49</b>	<b>36</b>

### LA6 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational safety programs

Delta Electricity has four local OHS Committees in place. These are shown in the table below.

OHS committees	Workforce representation
Delta Maintenance Central Coast	10
Delta Maintenance Western	10
Production Central Coast	26
Production Western	21
<b>Total</b>	<b>67 (9.0%)</b>

### LA7 Rates of injury, occupational diseases, lost days, absenteeism and total number of work-related fatalities by region

#### Total workforce

The total workforce as at June 2009 was 741 permanent employees. (See LA1 Total workforce by employment type, employment contract and region).

#### Independent contractors working on-site to whom the organisation is liable for the general safety of the working environment

Delta Electricity had 3,918 contract staff inducted to work on power station sites in the 2008-09 year.

## Labour and work performance

Continued

### Lost days

Delta operates in a high-risk environment and uses a range of risk-minimisation strategies including training, policies and procedures and a wide range of safety initiatives such as risk assessments and audits.

### Delta's injury statistics

Injury measurement	Rate	
	2007-08	2008-09
Frequency rate	4.9	4.8
Duration rate (days)	5.7	3.0
Number of lost time injuries	7	7
Number of lost time days	40	21

The above injury rates do not include minor (first aid level) injuries.

The frequency rate count begins once a full day or shift is lost after the one in which the injury occurred. The rate represents the average number of lost time injuries (LTIs) on a staff number basis.

The frequency is calculated:  $(\text{Total lost time injuries} \times 1,000,000) / (\text{Average number of staff during past 12 months} \times 2,000)$ .

The total days lost is based on scheduled work days rather than calendar days.

There were no work-related fatalities involving Delta employees or contractors for the financial year 2008-09.

### Occupational diseases

There were 13 industrial deafness claims (five ex-employees and eight current employees) lodged in the relevant period and three overuse-syndrome claims. There was one mesothelioma claim lodged by an ex-employee.

It should be noted that the industrial deafness and mesothelioma claims are excluded from the overall duration/frequency rates.

Delta does not currently report occupational diseases rates or absentee rates on a regional basis.

### Health and safety performance of contractors and sub-contractors

Measurement	Western		Central Coast		Delta Maintenance	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
No. of lost time injuries	3	2	5	5	3	1
No. of lost time days	37	14	18	18	4	1

## LA8 Education, training, counselling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases

### Assistance to workforce members regarding serious diseases

Program recipients	Education and training		Counselling		Prevention and risk control		Treatment	
	Yes	No	Yes	No	Yes	No	Yes	No
Workers	✓		✓		✓		✓	
Workers' families		✓	✓			✓	✓	
Community members		✓		✓		✓		✓

## Labour and work performance

Continued

### Education and training

Delta has identified a number of potential workplace hazards that may lead to serious disease. These include exposure to asbestos and other dangerous chemicals and risk from fatigue and anxiety. Delta has developed procedures and training and information packages to manage these hazards.

### Counselling

#### *Employee Assistance Program*

Delta operates an Employee Assistance Program (EAP) to support and provide counselling to members of staff and families in need. Participation in EAP is voluntary and confidential. Employees with personal problems or issues are encouraged to seek assistance and are assured that it will not affect job security, leave or any other entitlements.

Counselling is available for a wide range of issues including substance abuse, relationships, financial and legal concerns, disability, health and retirement.

Reports are provided which protect the anonymity of participants while allowing Delta to adapt practices and manage issues within the workplace.

### Prevention and risk control

#### *Fitness fee reimbursement scheme*

Delta runs a fitness fee reimbursement scheme to encourage our staff to keep physically and mentally healthy. The scheme reimburses half of fees to a maximum of \$250, for a range of activities that provide for aerobic fitness. These include gym and swimming centre membership, entrance fees for some sporting events and some sporting club memberships.

#### *Vaccinations*

Each year, influenza vaccinations are made available to staff free of charge.

### *Health monitoring*

Several medical checks are used routinely to monitor at-risk staff members, including heart checks, skin checks and dust and disease board lung x-rays.

### Treatment

Delta complies with the *Occupational Health and Safety Act 2000*, the *Occupational Health and Safety Regulation 2001*, the *Workers Compensation Act 1987* and the *Workplace Injury Management and Workers Compensation Act 1998*. These specify that an employer must develop an injury management plan and assist in the rehabilitation of the affected worker.

## LA10 Average hours of training per year per employee by employee category

### Employee training hours

Employee category	Average days/employee/year	
	2007-08	2008-09
Administrative officer	3	4.7
Engineering officer	5.5	8.9
Operator	18.0	8.9
Professional officer	7.5	8.4
Powerworker	2.0	2.3
Contract manager	4.5	4.4
Tradesperson	5	8.7
Trainee temporary	0.5	-
Casual administration officer	0.25	0.05
University students (temporary work experience)	4.5	3.4
Contract staff (fixed term)	0.08	0.14
<b>Total</b>	<b>5.8</b>	<b>7.2</b>

## Labour and work performance

Continued

### LA14 Ratio of basic salary of men to women by employee category

Equal Employment Opportunity (EEO) principles set down by the NSW Government remain fundamental to our recruitment and work practices. These principles are reinforced with staff during induction and training. All work policies and standards are aligned with EEO principles.

#### Gender balance by employee category

Employee category	Females		Males		Total staff	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
Administrative officer	54	58	67	65	121	123
Engineering officer	1	1	145	148	146	149
Operator	0	0	192	189	192	189
Professional officer	4	7	50	64	54	71
Powerworker	1	1	60	59	61	60
Contract manager	1	1	42	43	43	44
Tradesperson	1	1	105	104	106	105
Trainee (temporary)	1		2		3	
Casual administration officer	8	8	1	1	9	9
University students (temporary work experience)	0	1	7	9	7	10
Contract staff (fixed term)	0	0	2	4	2	4
<b>Total</b>	<b>71</b>	<b>78</b>	<b>673</b>	<b>686</b>	<b>744</b>	<b>764</b>

### EU14 Processes to ensure retention and renewal of skilled workforce

#### Staff turnover

Delta's staff turn over is very low. A large number of staff has defined benefit superannuation arrangements. This type of scheme encourages staff to remain with Delta as benefits are maximised towards the end of a person's career. Other factors affecting recent turnover include staff waiting for the outcome of energy industry reforms and uncertainty about the current financial markets.

Delta has introduced several initiatives to reduce the impact of future staff losses. Delta is involved in developing a pool of suitably skilled people to meet future employment needs in the energy sector by sponsoring graduate engineers at universities and creating and sponsoring apprenticeship opportunities across the regions where we operate. We also complete an annual workforce review to forecast employment categories where critical shortages may occur and to develop appropriate succession strategies.

Prior to long-term employees retiring, their knowledge and experience is captured through workflow analysis and then made available to other employees through online training.

## Labour and work performance

Continued

### Training and development

Training and development	Annual rate	
	2007-08	2008-09
Average training days per employee	5.8	7.2

Delta recognises that staff training is important to ensure that people both obtain and retain skills. Training opportunities are identified, negotiated and listed during the Performance & Development Agreement (PADA) discussions, and reviewed at both six and 12 months.

Delta also provides ongoing support to employees who wish to undertake external study for both their current and future positions. Employees undertaking an approved course of study who satisfy the criteria for study assistance may apply for reimbursement of fees or expenses.

A Chief Executive Scholarship is available to full-time staff within Delta. The successful applicant is offered the opportunity to be fully paid while undertaking full-time study at a tertiary institution for a year.

### Future development

Training sponsorships	Number sponsored	
	2007-08	2008-09
New apprentices	21	25
Apprentices (total)	49	67
University students	8	17

Sponsorship was provided through training organisations to support 25 new apprenticeships, bringing the total number of sponsored apprenticeships to 67, which includes four trainee riggers.

Delta also provides sponsorship for university students studying engineering. Currently, 17 sponsorships of varying arrangements are offered at Newcastle and Wollongong universities. The sponsorship includes financial support of their studies and opportunities for work experience at a Delta site. Additional placements for work experience are also offered to university students during semester breaks.

Delta is also a member of the Australian Power Institute (API). It is a non-profit body established by the electricity power industry to boost the quality and quantity of power engineering graduates. It provides additional bursaries and work experience opportunities.

### EU15 Percentage of employees eligible to retire in the next 5 and 10 years broken down by job and category and region.

#### Employees eligible to retire by category

Category	0-5 years		0-10 years*	
	Number	%	Number	%
Administrative officer	4	3	17	14
Engineering officer	10	7	55	37
Operator	11	6	52	28
Professional officer	3	4	11	15
Powerworker	7	12	25	42
Contract manager	4	9	11	25
Tradesperson	3	3	18	17
Casual administration officer	0	0	2	22
Temporary university students	0	0	0	0
Contract staff (fixed term)	4	100	4	100
<b>Total</b>	<b>46</b>	<b>6%</b>	<b>195</b>	<b>26%</b>

\* Includes 0-5 years staff.

#### Employees eligible to retire by region

Employee	0-5 years		0-10 years*	
	Number	%	Number	%
Vales Point	21	8	83	31
Munmorah	4	3	38	29
Mt Piper	2	2	22	18
Wallerawang	11	6	40	22
Sydney	8	13	12	19
<b>Total</b>	<b>46</b>	<b>6%</b>	<b>195</b>	<b>25.6%</b>

\* Includes 0-5 years staff.

This performance indicator was not reported last year. The retirement projections used were based on an assumed retirement age of 65 for all Delta staff.

## Labour and work performance

Continued

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### **EU16 Policies and requirements regarding health and safety of employees and employees of contractors and sub-contractors**

Delta Electricity has developed a range of OHS Policies and Standard Procedures to manage the health, safety and welfare of all personnel working on Delta sites. All documentation is subjected to stakeholder consultation, reviewed by the Executive Safety Committee and approved by the Chief Executive.

Delta Electricity reviews all its Policies and Standard Procedures within a two-year period, with many being reviewed annually.

### **EU18 Percentage of contractors and sub-contractors that have undergone relevant health and safety training**

One hundred per cent of contractors working for Delta have undertaken Delta's Induction Training, which includes OHS training.

### **EU19 Participatory decision-making processes with communities and outcomes of engagement**

Community consultation is conducted along a spectrum of strategies ranging from providing information to participatory decision-making. Delta's approach to community consultation is to inform community representatives about ongoing operations and new developments and seek their review and feedback. Some operations or aspects of a proposed new development may be modified in order to address concerns raised by community members.

As part of the development approval process, Delta consults broadly with those residential community members who may be impacted by a proposal. These communities may be outside our established areas of operation, and not represented on our standing consultative forums. Therefore, information is often provided to these communities through a community newsletter, which provides directions about how to give feedback about the proposal.

Feedback about development proposals is usually directed first to consultants that develop the Environmental Impact Assessment and then, while it is on exhibition, to the Department of Planning. In this way, communities are able to participate in decision-making related to changes to Delta's operations or to new development proposals.

### **EU25 Number of injuries and fatalities to the public involving organization's assets, including legal judgements, settlements and pending legal cases of disease**

There were no fatalities to the public during the period; however, two injuries were reported from members of the public who were accessing Thompson's Creek Dam to go fishing.

# PRODUCT RESPONSIBILITY PERFORMANCE

## PR6 Programs for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion and sponsorship

### Laws, standards and voluntary codes

#### *Advertising and promotions*

The current procedures and policy requirements for advertising and promotions are outlined in the current NSW Government Advertising Guidelines. State owned corporations are not necessarily subject to the requirements but may choose to use them as guidelines for achieving value for money outcomes.

The different types of advertising activities include:

- public awareness advertising;
- tenders and quotations;
- recruitment advertising; and
- important public information and statutory notices.

#### *Sponsorship*

A Sponsorship Policy is in place which ensures that corporate sponsorships and donations are aligned to Delta Electricity's business and community relations objectives. They often provide opportunities for direct interaction with both the broader community and specific local communities closest to Delta's business operations. Sponsorship and donations also contribute to achieving our aim of operating consistently with the principles of social and environmental responsibility as set out in the *Energy Services Corporations Act 1995*.

The Sponsorship Policy sets out that all community investments should be strategically focused, informed by the results of community research and consultation and aim to reflect Delta's social and environmental responsibilities. The policy notes that an annual sponsorship and donation program be prepared in the context of the Central Coast and the Western Community Relations Plan. Annual community relations plans and all corporate level sponsorships are approved by the Chief Executive and subject to review.

#### *Compliance Management System (CMS)*

Delta has established a Compliance Management System (CMS) to assist staff to comply with legislation and other requirements and laws that apply to their area of operation or management.

The Delta CMS essentially comprises:

1. An integrated set of policies, processes and systems aimed at ensuring Delta meets its compliance obligations (Delta compliance processes) for each business area.
2. A structural allocation of responsibilities of organisational positions and governance bodies within Delta, to ensure the compliance processes are implemented, followed and adapted as needed (the Delta compliance responsibility allocations).

## Product responsibility performance

Continued

### Number of employees trained in the laws, standards and voluntary codes

Compliance training	Number (2008-09)
Number of employees trained in the laws, standards and voluntary codes	100%*

\*Training is undertaken every two years

Team leaders identify relevant compliance training for their staff. The team leaders also bi-annually review whether the objectives of the training programs have been met.

The current marketing procedures and policy requirements are included in the CMS and compliance is managed consistently with it.

### Frequency with which the organisation reviews its compliance with the laws, standards and voluntary codes

Compliance reviews	Frequency (2008-09)
Frequency with which the organisation reviews its compliance with the laws, standards and voluntary codes	Continuous, with periodic formal reviews verified within the organisation's Lawlex compliance management system

The Legal and Compliance Manager reviews all new laws, standards and voluntary codes relevant to Delta. The role is responsible for consulting with and nominating the business unit affected by that instrument. The relevant business unit is responsible for developing a compliance plan for that instrument. At 30 June each year the responsible business unit manager certifies that all compliance plans for the business unit are relevant and adequate, and compliance tasks are included in the organisations compliance management database.

### PR9 Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services

Delta received no fines or notices of National Electricity Code breaches in 2008-09.

# APPENDIX 1.

## COMPLIANCE WITH GRI PRINCIPLES

Principle	GRI definition	Test	Compliance
Reliability	Information and processes used in the preparation of a report should be gathered, recorded, compiled, analysed and disclosed in a way that could be subject to examination and that establishes the quality and materiality of the information.	The scope and extent of external assurance is identified.	2006-07 Sustainability Report reviewed independently by Energetics.
		The original source of the information in the report can be identified by the organisation.	All performance information has source identified and is defined in a separate procedural document.
		Reliable evidence to support assumptions or complex calculations can be identified by the organisation.	All information in the report is supportable.
		Representation is available from the original data or information owners, attesting to its accuracy within acceptable margins of error.	Data managers and data custodians are identified and are accountable for the accuracy of the information.
Clarity	Information should be made available in a manner that is understandable and accessible to stakeholders using the report.	The report contains the level of information required by stakeholders, but avoids excessive and unnecessary detail.	The Sustainability Report has been professionally written, sub-edited and designed.
		Stakeholders can find the specific information they want without unreasonable effort through tables of contents, maps, links or other aids.	The report has a table of contents and key aspects are indexed.
		The report avoids technical terms, acronyms, jargon or other content likely to be unfamiliar to stakeholders, and should include explanations (where necessary) in the relevant section or in a glossary.	The Sustainability Report includes explanations where necessary, and a glossary of technical terms.
		The data and information in the report is available to stakeholders, including those with particular accessibility needs (e.g., differing abilities, language or technology).	Information is available if requested.
Balance	The report should reflect positive and negative aspects of the organisation's performance to enable a reasoned assessment of overall performance.	The report discloses both favourable and unfavourable results and topics.	Delta is committed to providing full disclosure of information relating to sustainability.
		The information in the report is presented in a format that allows users to see positive and negative trends in performance on a year-to-year basis.	This report sets a benchmark for comparing performance over the following years.
		The emphasis on the various topics in the report is proportionate to their relative materiality.	Performance indicators are selected to be industry specific.

**Appendix 1.**  
**Compliance with GRI principles**

Continued

<b>Principle</b>	<b>GRI definition</b>	<b>Test</b>	<b>Compliance</b>
<b>Comparability</b>	<b>Issues and information should be selected, compiled and reported consistently. Reported information should be presented in a manner that enables stakeholders to analyse changes in the organisation's performance over time and could support analysis relative to other organisations.</b>	The report and the information contained within it can be compared on a year-to-year basis.	This report sets a benchmark for comparing performance over the following years.
		The organisation's performance can be compared with appropriate benchmarks.	The performance indicators are selected by the NGF to be generation industry specific and comparable.
		Any significant variation between reporting periods in the boundary, scope, length of reporting period, or information covered in the report can be identified and explained.	There are no significant variations as explained in Sections GRI 3.6 and 3.7.
		Where they are available, the report utilises generally accepted protocols for compiling, measuring and presenting information, including the GRI Technical Protocols for Indicators contained in the Guidelines.	Performance indicators present information using industry standards.
		The report uses GRI Sector Supplements, where available.	The Electricity Utility Sector Supplement has been included.
<b>Accuracy</b>	<b>The reported information should be sufficiently accurate and detailed for stakeholders to assess the reporting organisation's performance.</b>	The report indicates the data that has been measured.	Quantitative information is used throughout the report. Qualitative information indicates processes are in place.
		The data measurement techniques and bases for calculations are adequately described, and can be replicated with similar results.	Performance indicators present information using industry standards except where otherwise stated.
		The margin of error for quantitative data is not sufficient to substantially influence the ability of stakeholders to reach appropriate and informed conclusions on performance.	All information provided in the report is robust and margins of error are not relevant.
		The report indicates which data has been estimated and the underlying assumptions and techniques used to produce the estimates, or where that information can be found.	Few estimates have been used and where they have been they are explained.
		The qualitative statements in the report are valid because they are based on other reported information and other available evidence.	Qualitative information is sourced from a number of defined sources and can be substantiated.
<b>Timeliness</b>	<b>Reporting occurs on a regular schedule and information is available in time for stakeholders to make informed decisions.</b>	Information in the report has been disclosed while it is recent relative to the reporting period.	The information is current for the reporting period.
		The collection and publication of key performance information is aligned with the Sustainability Reporting schedule.	The report provides information to the Executive as part of Delta's strategic planning cycle.
		The information in the report (including web-based reports) clearly indicates the time period to which it relates, when it will be updated, and when the last updates were made.	The period of the report is clearly indicated throughout, and is equivalent to the period covered by the annual financial performance report.

## APPENDIX 2.

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# GLOSSARY

<b>BCM</b>	Business Continuity Management	<b>kL</b>	Kilolitre = 1,000 litres
<b>CARE</b>	Community Access Regional Environment forum	<b>kt</b>	Kilotonne = 1,000 tonnes
<b>CCS</b>	Carbon capture and storage	<b>kWh</b>	Kilowatt hour = 1,000 watt hours – unit of power
<b>CFC</b>	Chlorofluorocarbon	<b>LTI</b>	Lost Time Injuries
<b>CMC</b>	Compliance Management System	<b>mg/L</b>	Milligrams per litre
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>ML</b>	Megalitre (million litres)
<b>CPRS</b>	Carbon Pollution Reduction Scheme	<b>Mt</b>	Megatonne (million tonnes)
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation	<b>MW</b>	Megawatt
<b>DECCW</b>	NSW Department of Environment, Climate Change and Water	<b>MWh</b>	Megawatt hour: Million watt hours – unit of power
<b>EAPS</b>	Ethnic Affairs Priority Statement	<b>NAIDOC</b>	National Aboriginal and Islander Day Observance Committee
<b>EEO</b>	Equal Employment Opportunities	<b>NEM</b>	National Electricity Market
<b>EMS</b>	Environmental Management System	<b>NGERS</b>	National Greenhouse and Energy Reporting System
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>	<b>NGF</b>	National Generators Forum
<b>esaa</b>	Energy Supply Association of Australia	<b>NOx</b>	Nitrogen oxides, primarily nitric oxide (NO) and nitrogen dioxide (NO <sub>2</sub> )
<b>ESAS</b>	Electricity Sector Adjustment Scheme	<b>OHS</b>	Occupational Health and Safety
<b>ETS</b>	emissions trading scheme	<b>PADA</b>	Performance and Development Agreement
<b>GJ</b>	Gigajoule (equivalent to a thousand million joules)	<b>pH</b>	Measure of the degree of the acidity or the alkalinity of a solution from 0 to 14
<b>GRI</b>	Global Reporting Initiative	<b>PJ</b>	Petajoule; 10 <sup>15</sup> Joules – a measure of energy content of fuel
<b>GWh</b>	Gigawatt hour; 10 <sup>9</sup> watt hours – unit of power	<b>SOx</b>	Sulfur oxides, primarily sulfur dioxide (SO <sub>2</sub> ) and sulfur trioxide (SO <sub>3</sub> )
<b>HCFC</b>	Hydrochlorofluorocarbon	<b>WRAPP</b>	NSW Government's Waste Reduction and Purchasing Policy
<b>ISO</b>	International Standards Organisation		
<b>kg</b>	Kilogram		