



People Powering People

Looking out for the future

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Ergon Energy Corporation Limited ABN 50 087 646 062
Ergon Energy Pty Ltd ABN 66 078 875 902



Environmental Report 2002

This report on Ergon Energy's environmental performance for the year ending 30 June 2002 is the first of what will become regular public reports. It covers the activities of Ergon Energy Corporation Limited and Ergon Energy Pty Ltd. Both are referred to as 'Ergon Energy', 'the company' or 'the organisation' throughout the report.

The Environmental Report complements the company's Annual Report, which details Ergon Energy's financial and social performance for the 2001-2002 financial year. Both the Environmental Report and Annual Report are available on Ergon Energy's website www.ergon.com.au/about_us

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A word from our CEO

As the operator of one of Australia's largest and most diverse electricity distribution networks, and as one of Australia's leading energy traders, Ergon Energy is aware of the difference that responsible environmental policy and behaviour can make.

We are committed to making environmental consciousness a core part of the way we operate, not a second-order consideration. Our aim is to drive continual improvement through sound practices and innovation.

This report is evidence of our goal to promote environmental understanding and responsible environmental behaviour among Ergon Energy's staff and among those with whom we interact.

Reporting on our environmental performance not only demonstrates our commitment to environmental responsibility, but also builds shared knowledge on which continual improvement can be based.

The past three years have seen many challenges for Ergon Energy as our new company has been established through the integration of six regional electricity distributors with the existing retailer. One of our key priorities is the implementation of a business-wide Environmental Management System - the system by which we will manage our environmental activities across our widely distributed organisation and service area. We are working to implement this system across the organisation by 2003 and have it certified to the international standard ISO 14001.

To help drive our commitment, we are currently implementing a training program aimed at building awareness of the potential environmental issues that may be encountered in the workplace.

We view the progress towards environmental sustainability as a continuing journey rather than a destination. We will continue to strive for higher standards. With this in mind it is appropriate to recognise the progress we have made in the past year - and we do so with the full knowledge that there is much yet to be done.

Of note is that Ergon Energy's Transmission and Distribution Services business unit achieved certification to ISO 14001 during the year. This certification is now being sought for all the other business units within Ergon Energy.

We continue to build our position as one of Australia's largest purchasers from new sources of renewable energy. Supporting this, we continue to search for and support renewable energies from traditional sources, such as the sugarcane by-product bagasse, and innovative sources, such as macadamia nut shells.

Our commitment to the Greenhouse Challenge Agreement and the ESAA's Code of Environmental Practice is another demonstration of our commitment to progress towards sustainability based on industry, national and international standards.

This first public environment report examines our achievements and challenges to date. We are proud of our progress so far and look forward to an even stronger story to tell for our next report.



Kim Griffith
Chief Executive Officer



Our corporate Profile

Ergon Energy is one of Australia's largest energy companies and purchasers of new sources of renewable energy. Queensland owned, with assets worth \$3 billion, we provide leading energy trading, distribution and contracting services, safety and environmental training, remote area power generation and infrastructure development and maintenance.

The Ergon Energy group includes Ergon Energy Corporation Limited - the electricity distributor, and Ergon Energy Pty Ltd - the energy retailing business. The group was established through the merger of six former regional Queensland electricity distributors in June 1999 with the earlier creation of the retail subsidiary.

Ergon Energy distributes electricity to more than 580,000 franchise customers in an area covering 97 per cent of Queensland. We also retail electricity to contestable customers eligible to purchase electricity from their retailer of choice in Queensland, New South Wales and Victoria. Our electricity network is one of the largest and most diverse of its kind operated by a single distributor in the western world. Employing more than 2500 staff, we supply power to the remotest corners of Queensland from Birdsville in the far South West to Saibai Island in the Torres Strait.

Ergon Energy recognises that our operations have the potential to impact on the environment. The provision of energy that is both safe and reliable raises many economical, social and environmental challenges. Our key issues include:

- fuel and oil spills
- energy and greenhouse
- flora and fauna
- soil contamination
- hazardous substances use and disposal.

We have a senior management committee established to provide leadership and ensure that we handle matters that could impact on the environment in a manner that matches world's 'best practice'. Currently, one of the priority aims for Ergon Energy is the implementation of management systems to ISO 14001 certification across the organisation. Our future strategy will continue to integrate our environmental agenda and social accountability into Ergon Energy's business ethos to achieve continual improvement and innovative performance.

Working towards our vision

Ergon Energy's corporate vision is to be 'a world-class, customer-driven, energy business'.

Our Mission is to deliver customer and shareholder value through the provision of sustainable energy solutions and associated services. This means that we will be committed to:

- delivering quality products and services to our customers
- world-class infrastructure management
- creating an environment committed to our people
- developing profitable new business opportunities
- supporting our regional communities.

Helping to achieve this mission are the activities under way to help us better our environmental performance. These initiatives are being driven by the commitments we make in our Environmental Policy documented on the following page.



Standing by our Commitments

Ergon Energy is working towards integrating best practice environmental management principles into all aspects of its business. We are committed to achieving a balanced outcome of environmental protection, economic growth and social equity.

Our Environmental Policy

Ergon Energy is committed to environmental responsibility as an integral part of its business operations so we can deliver the best outcome for our customers, the community and our business.

As the operator of one of Australia's largest and most diverse electricity distribution network infrastructures, and as one of the country's leading retailers and wholesalers of new sources of renewable energy, we aim to continually enhance our environmental credentials in energy supply and solutions.

In our operations and dealings with others, Ergon Energy will adopt reasonable and practical measures to:

- establish and maintain responsible standards, objectives and targets for managing the environmental impacts of our products, services and processes;
- monitor, review and audit our documentation, processes and performance against recognised environmental benchmarks, address any non-conformance and strive for continual improvement;
- support the principles of sustainable development by promoting safe and responsible work practices;
- foster a pollution-prevention ethic;

- encourage environmental awareness and responsibility through the internal and external reporting of our performance;
- ensure relevance, compliance and sensitivity of our practices by monitoring laws, regulations, other requirements and community expectations.

Ergon Energy will allocate resources to support fulfilment of this policy and to communicate this policy to our employees and the public. We expect our directors, managers, employees and contractors to ensure the environment is a prime consideration in all their activities.

Individuals are ultimately responsible for their own conduct and therefore their impact on the environment. By example, we will promote a culture of environmental responsibility within Ergon Energy and the wider community.

Kim Griffith
Chief Executive Officer
1 July 2001

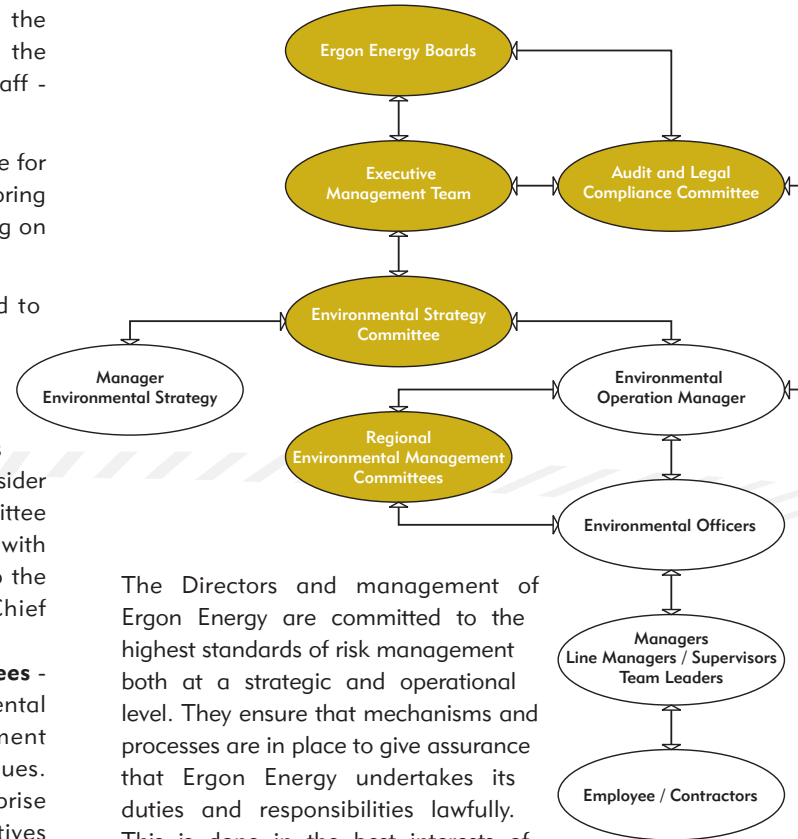
Ensuring environmental Accountability

Commitment to our Environmental Policy and the impact of our operations is achieved through the decisions made and the work performed by our staff - whether individually or as teams.

We have dedicated individuals and teams responsible for spearheading our environmental activities, monitoring their progress, as well as implementing and reporting on the environmental management system.

Seven committees have been specifically created to help ensure that environmental management is dealt with both strategically and operationally within Ergon Energy:

- **Environmental Strategy Committee** - meets quarterly to provide an executive forum to consider environmental management matters. The Committee provide guidance, leadership and sets strategies with company-wide objectives and targets. Reports to the Executive Management Team and the Chief Executive Officer.
- **Regional Environmental Management Committees** - operate in six regions to address local environmental issues, as well as environmental management system implementation and communication issues. The Committees, which meet quarterly, comprise environmental and management representatives from key business areas. There is opportunity for local community input into the meetings via the Regional Electricity Council forum set up by the State Government.



The Directors and management of Ergon Energy are committed to the highest standards of risk management both at a strategic and operational level. They ensure that mechanisms and processes are in place to give assurance that Ergon Energy undertakes its duties and responsibilities lawfully. This is done in the best interests of shareholders and stakeholders.

The Boards are supported by four advisory committees. This support ensures the Directors can address issues relating to internal controls or approaches to risk management. The committees are part of a fully functioning corporate governance program and include:

- Audit and Legal Compliance Committee
- Human Resources Committee
- Financial Risk Management Committee
- Business Development Committee.

In 2000, we extended our internal audit processes. Senior executives are now responsible for quarterly reporting to the Audit and Legal Compliance Committee on major risk exposures and compliance obligations that relate to their operational areas. The Committee also receives a quarterly report on recent legislative changes, significant compliance and risk management issues and initiatives as well as external developments such as court decisions and broader community concerns.

Through our environmental sponsorships, together with local communities, we are making a real difference.



Maintaining open relationships with our stakeholders

At Ergon Energy, we acknowledge the value of developing open, honest and transparent relations with all our stakeholders and we continually seek ways for improvement. As an organisation covering much of the large state of Queensland, we know issues can vary from region to region, and so we have established a Community Interaction Program, which consists of a series of forums between Ergon Energy staff and its customers.

The program is designed to:

- provide staff with a direct access to customers to better understand their needs and expectations
- provide valuable, regular community feedback on topical and relevant issues
- use the feedback to assist in stakeholder management issues
- be used as a 'sounding board' for company initiatives.

Community Interaction Program forums have been completed in Townsville, Charleville, Gladstone, Maryborough, Longreach, Cairns, Charters Towers, Mackay, Mt Isa and Toowoomba. Participants were selected from a broad range of stakeholder groups.

These groups included:

- business customers
- local government representatives
- environmental groups
- rural lobby groups
- emergency services agencies
- residential customers
- electorate officers of members of parliament
- Regional Electricity Council members
- energy lobby groups
- suppliers
- ethnic group representatives
- schools
- industry groups.

Given below are some feedback resolution statistics which include both enquiries and complaints.

Class	Total Received	Average no. of days to resolve	% Resolved within 5 days	% Resolved within 20 days
Environmental Issues	49	28	33%	94%
Energy Saver Products	8	6	75%	100%
Solar Hot Water Systems	5	22	40%	80%
Vegetation Management	301	17	51%	96%

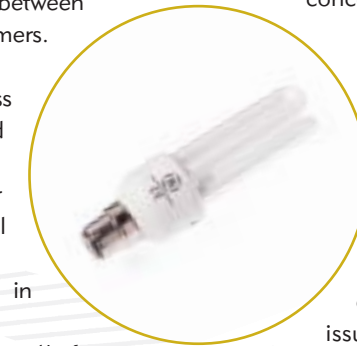


Our Energy Saver products are helping our customer service team help our customers reduce their energy use - saving money and the environment.

Local stakeholders and community groups are also able to raise issues at the quarterly Regional Electricity Council meetings.

To seek ways to improve our relations with stakeholders, Ergon Energy has implemented a 'continuous improvement program register'. Devised to collect suggestions from staff, community groups and customers, we plan to utilise information from the register to better understand and address the needs and concerns of our stakeholders.

Ergon Energy takes any feedback or complaints we receive seriously. The complaints registration process directs it to the most appropriate staff member to deal with. It is the responsibility of the staff member to act promptly, resolve the complaint and file an incident report along with actions that were taken to correct it. There is follow up on unresolved issues through regular reporting. Due to the complexity of some issues, some complaints take considerable time to resolve. Our aim is to resolve an issue as soon as practicable.



Targeting Best Practice

Improving our management systems

Ergon Energy has been working to ensure our Environmental Management System meets recognised benchmarks. In December 2001, Ergon Energy's Transmission and Distribution Services business unit achieved certification to ISO 14001 - an international standard that ensures the systematic management of environmental risks. Ergon Energy's Environmental Management System includes an Environmental Policy, objectives, targets and procedures to identify and manage significant environmental risks.

As part of the System, we are conducting a comprehensive environmental audit and risk assessment across our entire business to identify environmental impacts of our business activities, products and services and determine their relative significance. The risk assessment process takes into account not only the potential environmental impact of an activity, but also the social and economic implications. Risk ratings are based on the estimated likelihood and consequence of a particular event occurring.

At the end of the year, 240 out of our 418 major facility sites across Queensland had been audited including depots, substations and the 33 power stations we own and operate in remote communities. The organisation-wide audit is now being completed. Information collected will be used to develop site-based management manuals. In liaison with local facility managers, it will also be used to prioritise actions necessary to address higher risk activities and the needs of sites where capital works are required.

The results of the audit will also assist in producing new standard business processes and work practices to help minimise the risk to the environment. Ergon Energy's Environmental Management System includes environmental management practices for fish and river habitats, sensitive flora and fauna, control of declared plants and soil erosion and sediment control.

Our commitment to improving environment management across the entire organisation and to gaining ISO 14001 certification is evidenced in the resources we have invested into the roll-out of the Environmental Management System. We spent \$2.1 million during phase 1 (from September 2001 to June 2002) with an additional \$3.5 million committed to phase 2 (from February 2002 to March 2003). Our target date to achieve ISO 14001 certification across all business units is March 2003.

Some challenges remain for the implementation of the System across the organisation, however, these are being resolved as the System continues to mature.

Issues that need careful monitoring as it is extended to other areas include:

- the control of environmental aspects and impacts in the field
- the control of issues at multi-tenanted sites
- monitoring and measurement of performance
- allocation of staff to facilitate the System's implementation
- the conduct of appropriate internal audit processes.

As part of the Environmental Management System, an Environmental Planning for Construction Manual is being developed to protect biodiversity and ecological systems during the development, construction and maintenance phases of the electrical network. The use of this manual will ensure that Ergon Energy's approach to environmental management is consistent across all business units and in all regions. The manual will cover:

- vegetation management
- fauna management
- legislative and permit approvals
- soil management
- social issues, such as cultural heritage, visual amenity, noise and EMF
- waste management.

Building staff awareness

Ergon Energy conducts training courses for staff to help build awareness of our environmental obligations. Three courses have been developed and delivered for our office, depot and field workers. They include environmental awareness, management of fuel and oil spills, and a field environmental overview.

Ergon Energy is piloting environmental awareness computer-based training courses (eLearning Pilot). If successful, the eLearning Pilot will:

- provide an alternative option for delivering environmental awareness training
- help ensure a consistent approach to induction-level training
- be instrumental in reaching workers in the more remote regions of our distribution area.

We recognise the importance of ensuring our contractors work to the same environmental management standards as Ergon Energy. In response, we are developing and implementing environmental training processes for contractors, as well as new employees.

Achieving our Performance goals



We are working towards continuous improvement in our performance. Our foundation will be the integration of an Environmental Management System across the entire organisation. Our quarterly customer surveys show 65 per cent agree Ergon Energy is sensitive to the environment (June 2002). This has been tracking upwards since we began the surveys in early 2001.

The environmental performance indicators provided here give an indicative summary of our environmental performance. We intend to continue developing performance indicators, objectives and targets and to better communicate our progress.

Environmental Performance Summary Actuals 2001/2002

MANAGEMENT INDICATORS

Legislative compliance	
• Total number of major incidents reported to environmental regulators	6
• Number of prosecutions	0
• Penalties for non-compliance	\$0
Environmental management	
• ESAA Code of Practice Audit results	
- Sustainable development	3.6
- Social responsibility	3.7
- Environmental management	2.8
- Resource management	3.8
• Fraction of activity with EMS certified to ISO 14001 (based on % number of employees)	28%
• Environmental expenditure (roll out of environmental management system - Phase 1)	\$2.1M

NETWORKS

Transmission and distribution losses	
• Transmission and distribution losses (for both regulated and unregulated networks)	917GWh or 6.6MWh/circuit km or 6.53% of GWh throughput
Greenhouse	
• Greenhouse gas emissions	836,400 tCO _{2e}
• Average carbon intensity of electricity supplied	976 tCO _{2e} /GWh sent out
Vegetation management	
• Customer satisfaction with vegetation management	275 complaints
Visual impact	
• Cables underground	2.1% of total kms
Hazardous substances	
• SF ₆ released to the environment	9kg (or 215 tCO _{2e})
• PCB contaminated oil removed and disposed of	217,000 litres

REMOTE GENERATION

Greenhouse	
• Greenhouse gas emissions	64,900 tCO _{2e}
• Carbon intensity of electricity sent out	739 tCO _{2e} /GWh sent out
Emissions to air	
• Emissions from oxides of nitrogen (NO _x)	1500 tonnes (or 17 t/GWh sent out)
• Sulphur dioxide (SO ₂) emissions	190 tonnes (or 2.1 t/GWh sent out)
• Dust (particulate) emissions	180 tonnes (or 2.0 t/GWh sent out)
• Carbon monoxide (CO) emissions	950 tonnes (or 10.8 t/GWh sent out)

RETAIL

Renewable energy	
• Customer subscriptions to Green Energy	6082 customers (or 32.6GWh sales or 0.4% of total sales)



Independent tick for improvements

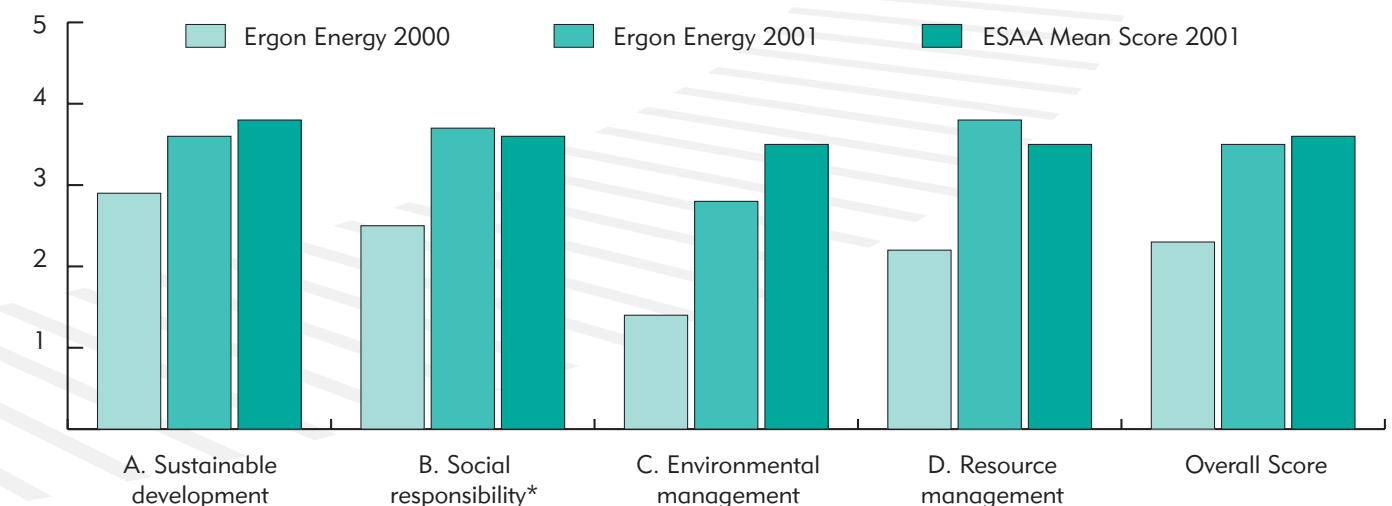
In 2000 and 2001, our environmental performance was independently audited against the Electricity Supply Association of Australia (ESAA) Code of Environmental Practice. The ESAA represents the major Australian electricity supply industry businesses including generators, transmission companies, distributors and retailers. Their Code of Practice aims to provide clear guidance on a sound approach to managing environmental matters.

The audit showed our performance improved significantly between 2000 and 2001. A number of factors contributed to this improvement including:

- progress in embedding standard policies and procedures across the organisation, subsequent to the merger of six businesses
- the roll out of our Environmental Management System across the entire organisation, with one business unit already achieving certification to ISO 14001
- the Environment Management Systems in the Retail, Business Development and Wholesale business units were more integrated and focussed.

We are committed to continually improving our performance against the ESAA Code of Environmental Practice.

ESAA Environmental Practice Indicators



Scoring: 5 - examples of corporate leadership; 4 - full integration into businesses; 3 - systems implemented; 2 - systems being implemented; 1 - action planned and documented; 0 - no evidence of compliance.

*In 2001, ESAA reviewed its Code and simplified it by reducing the number of policy areas from five to four. The old policy areas of Social Responsibility and Community Participation were combined under the former title.

Environmental licences, compliance and incidents

Ergon Energy maintains environmental licences under the Environmental Protection Act 1994, at the following facilities:

- Thursday Island Power Station
- Hartley Street Depot (Cairns)
- Virginia Transformer Repair Workshop (Brisbane).

During the year, major incidents reported to environmental regulators were as follows:

Cause	Incident
Exceeding licence parameters	The discharge of contaminants to storm water exceeded the environmental licence parameters at the Virginia Transformer Repair Workshop. To address this, Ergon Energy entered into a voluntary Environment Management Program with the Environmental Protection Agency to successfully reduce discharge levels to within licence limits.
Organochlorine pesticide (OCP) contamination	Cattle with high OCP levels were detected at an abattoir. Investigation revealed that a Killarney feedlot had ex-Ergon Energy poles recycled for the property's use. The property was quarantined by the Department of Primary Industries. The poles originated from pole replacement works. Remedial works involving the removal of contaminated soil and exposed treated pole butts have occurred at all impacted sites. Ergon Energy has reviewed procedures for disposal of redundant timber poles treated with OCPs.
Oil spills	<p>Palm Island A small oil spill resulting from the flooding of an oil/water separation system from heavy rains occurred at the Palm Island power station. Interim measures to prevent further spillage were implemented and the existing triple interceptor trap is to be replaced with a vertical gravity separation unit and associated waste collection tank.</p> <p>Mornington Island Approximately 600 litres of oil spilled into a stormwater drain. The oil was flushed out of the stormwater pipe and all contaminated soil was taken to landfill. Use of double lined containers should prevent a recurrence of this incident.</p> <p>Farleigh Mill Substation Approximately 900 litres of oil, which was contained on site, was released. Activated charcoal and fertiliser were applied to the spill area and the effects and results are being monitored.</p>
Vegetation works	Graham Range World Heritage Wet Tropics Area A small section of vegetation was cleared by a bulldozer which was on site to assist a lifter borer to access a pole. Some trees required removal under the line and were cleared by the bulldozer. The impacted area was mulched to reduce soil erosion and sediment runoff. Inspection was carried out with the Wet Tropics Management Authority (WTMA). The extent of the clearing was relatively minor and the WTMA were satisfied with Ergon Energy's response to the incident. Late in the previous reporting period, a vegetation clearing permit had inadvertently lapsed, however a contractor nevertheless proceeded to clear vegetation in the Wooroonooran National Park. In both cases we have assured the Environmental Protection Agency that processes have been revised to ensure compliance with permit timing and conditions in future.

Responding to the Greenhouse challenge

Greenhouse gases are a natural part of the atmosphere; they help to maintain the Earth's surface temperature. We know that the burning of fossil fuels, such as coal, is increasing the concentrations of these gases and may contribute to global climate change.

As an electricity supplier, greenhouse gas abatement is integral to our business. Ergon Energy entered into a Greenhouse Challenge Cooperative Agreement with the Federal Government in 2002, which built upon the original Cooperative Agreements individually entered into by its predecessor companies during 1997 and 1998. The Cooperative Agreement identified a range of actions that Ergon Energy will endeavour to undertake to reduce greenhouse gas emissions.

Areas of action for Ergon Energy include:

- reduction in transmission and distribution losses associated with the electricity network
- the installation of renewable energy sources in remote locations
- improved energy management at each of our facilities
- more efficient fuel use in operating our remote generation and vehicle fleet
- promotion of green energy products
- development of renewable energy projects
- purchasing from more renewable energy sources
- energy efficiency awareness and promotions to customers.

Greenhouse gas emissions included in the agreement are:

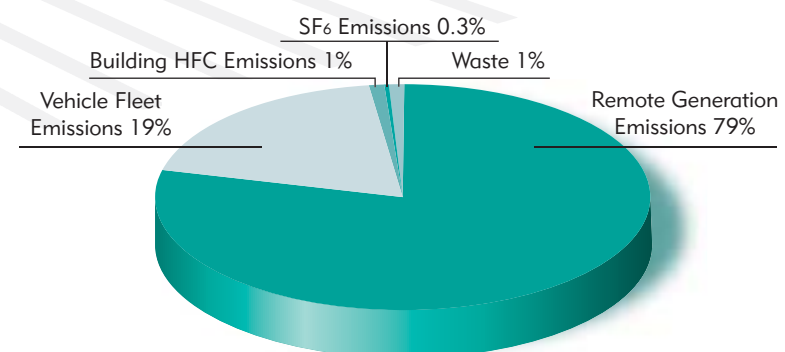
- carbon dioxide (CO₂) from the combustion of liquid petroleum gas (LPG), heavy fuel oil (HFO), petrol and diesel
- hydrofluorocarbons (HFCs) from building and vehicle air conditioning
- sulphur hexafluoride (SF₆) from switchgear in the electricity distribution network
- methane (CH₄) from waste.

The emission of these substances is measured in tonnes of carbon dioxide equivalents (tCO₂e). Ergon Energy's 2001/02 greenhouse gas inventory consisted of 'source' emissions (created directly by Ergon Energy) and 'end-use' emissions (associated with electricity use). Source emissions in 2001/02 totalled 82,680 tCO₂e (which included the emission of 9kg of SF₆) while the end-use emissions were 851,720 tCO₂e.

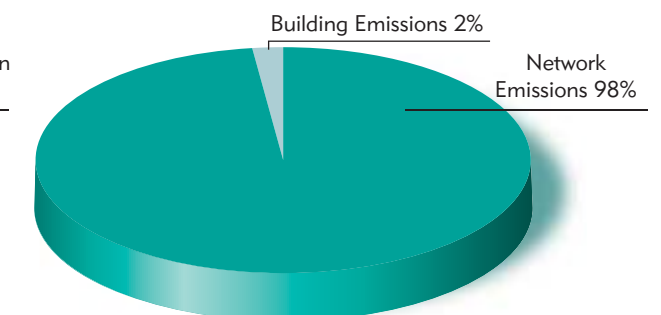
Ergon Energy will be reporting greenhouse performance through annual Greenhouse Challenge Progress reports. In 2001/2002 Ergon Energy completed three actions committed to in the Greenhouse Challenge Agreement and identified nine new actions. One action item was dropped, three actions were deferred, and 60 other actions are progressing. Actions, and emissions, are either under our direct control (eg. augmentation of network, or remote generation efficiency upgrades), or Ergon Energy can work with others to influence them to reduce their emissions (e.g. customer energy efficiency, increase in generation of renewable energy). During 2001/02, savings of over 1650 tCO₂e were attributable to control actions and almost 279,000 tCO₂e were attributable to influence actions. Actions that are currently being undertaken include:

- Conductor Rationalisation (control action): A marginal increase in conductor size and the withdrawal of smaller sizes used in new and replacement work will result in a network with a lower electrical resistance and subsequent reduction in system losses by over 5800MWh accumulating each year. This corresponds to a reduction of greenhouse gas emissions of approximately 5300 tCO₂e accumulating as new conductor is erected and conductor erected in previous years continues in service. The project is due to start during 2003 and we expect the full benefits to be realised during 2003/04 and beyond.
- Marketing of Energy Saver Packs (influence action): A total of 1910 base packs were sold, which comprise three energy-efficient light bulbs and one showerhead. This result exceeded our target of 1100 packs. Anecdotal evidence points to an increasing level of uptake of these packs. Annual savings in energy that have been influenced through the sale are estimated to be 4430kWh per base pack, which equates to a reduction of 8461MWh and an emission reduction of 8250 tCO₂e.

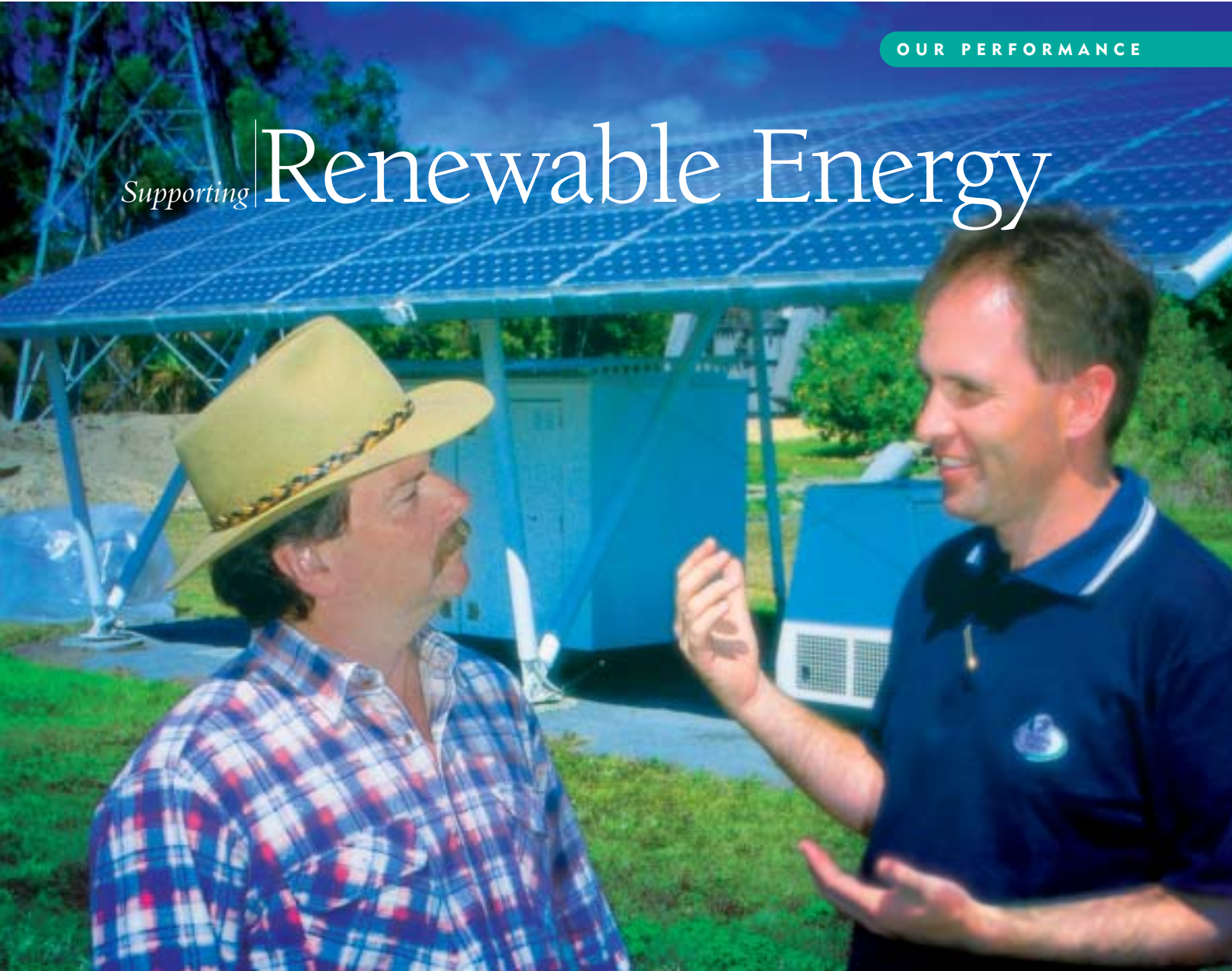
Source Emissions



End-Use Emissions



Supporting Renewable Energy



We have responded to the demand for alternative energy and today Ergon Energy is one of the largest purchasers of new sources of renewable energy in Australia. We will continue to invest in sustainable energies and source energy-efficient products to offer our customers.

In 2001, the Federal Government introduced mandatory renewable energy targets for wholesale purchasers of electricity. Under the Renewable Energy (Electricity) Act 2000, wholesale electricity buyers, such as Ergon Energy, are required to demonstrate that they are purchasing increasing amounts of renewable energy. To show compliance, companies surrender Renewable Energy Certificates (RECs) to the Office of the Renewable Energy Regulator each year. Renewable energy is regarded as any source of energy that can be used without depleting its reserves, such as solar energy, wind, biomass and hydro energy.

By supporting alternative energy sources, Ergon Energy exceeded its renewable energy purchasing targets in their first year. We are now working towards our renewable energy purchasing targets for 2003 and beyond, with a number of contracts signed recently with new small-scale renewable energy generators. As a result of this initiative, we expect our additional renewable purchases to power the equivalent of more than 100,000 homes by 2010.

A great RAP for our remote power

Ergon Energy's latest innovative product stationpower® is at the forefront of eco-friendly remote area power supply (RAPS). Families and communities living in remote areas of Australia who cannot tap into grid electricity have traditionally relied on diesel-fuelled generators for power. Today, more than 100 families and businesses around Queensland, including the Torres Strait, use renewable energy-based RAPS systems designed and supplied by Ergon Energy for their daily power requirements. The Queensland Parks and Wildlife Services has also utilised six units in environmentally sensitive areas around the State.

Ergon Energy's stationpower® is a large-scale renewable energy stand-alone power system based on solar power, with the optional extra of a wind turbine and backup diesel generators. While the technology itself is not new, its use in such large-scale systems is recent. It means reliable 24-hour power supply at an affordable price for rural residents with the environmental benefits from reduced diesel consumption and reduced greenhouse gas emissions.



The backbone of the system has 80 solar panels generating power, which is stored in a gel cell battery bank. The stored energy from the batteries is converted into 240 volt power by inverters. The power is suitable for powering standard household appliances and lights and workshop equipment such as welders.

Features, including modular design, plug-in components, remote data logging, built-in expansion capability and commercial quality control equipment, have placed stationpower® at the international forefront of RAPS design. The system, built by a team of Ergon Energy specialists in Cairns, Far North Queensland, was recognised in 2001 when stationpower® won the Engineering Excellence Award in the environment category of the Queensland Division of the Australian Institution of Engineers' Excellence Awards.

This is just one example of Ergon Energy utilising technology to harnesses nature and turn it into an everyday energy source.

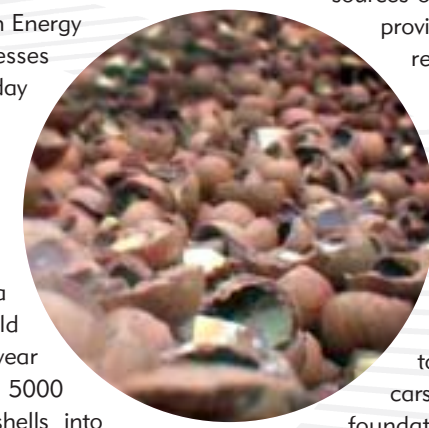
Macadamia-shell 'power plant' a world first

In 2002 we launched a joint venture with local macadamia processor Suncoast Gold Macadamias (SGM). The 20-year project will initially turn about 5000 tonnes of waste macadamia shells into 'green' energy which will power 1260 homes each year and reduce greenhouse gases by 9700 tCO₂e annually. SGM was the first macadamia processor in the world to develop and co-generate green power into a national grid.

Ergon Energy will install \$3 million in equipment including a 6MW high-pressure steam boiler and a 1400kW steam turbine to generate 9.5GWh/annum of electricity and 9 tonnes/hour of steam. SGM will consume up to 1.4GWh/annum and the rest will be exported and traded in the national electricity market.

A sweet future for Queensland's renewable energy crop

Ergon Energy continues to work in partnership with the State's sugar mills to harness and expand their capability to generate renewable energy as a by-product of the milling process. By utilising an existing practice where mills generate their own electricity from the waste product bagasse, Ergon Energy has assisted the industry



to optimise this practice and generate renewable energies which are sold to the national electricity market.

Currently the sugar mills produce enough renewable energy to power 50,000 homes each year while emitting on average one-third the greenhouse gas emissions of conventional power production.

Ergon Clean Energy - the green solution

As one of the largest purchasers and traders of new sources of renewable energy, we are committed to providing our customers with easily accessible renewable energy options. Recently we joined forces with the National Green Power Accreditation Program to promote the use of green power.

To date more than 6000 customers have signed onto our Ergon Clean Energy program. This support for the year has enabled us to purchase over 32GWh of renewable energy - equivalent to saving 32,000 tCO₂e or taking over 7500 cars off the road. This program provides the foundation as we continue to focus on the purchase and delivery of more environmentally sustainable energy sources.

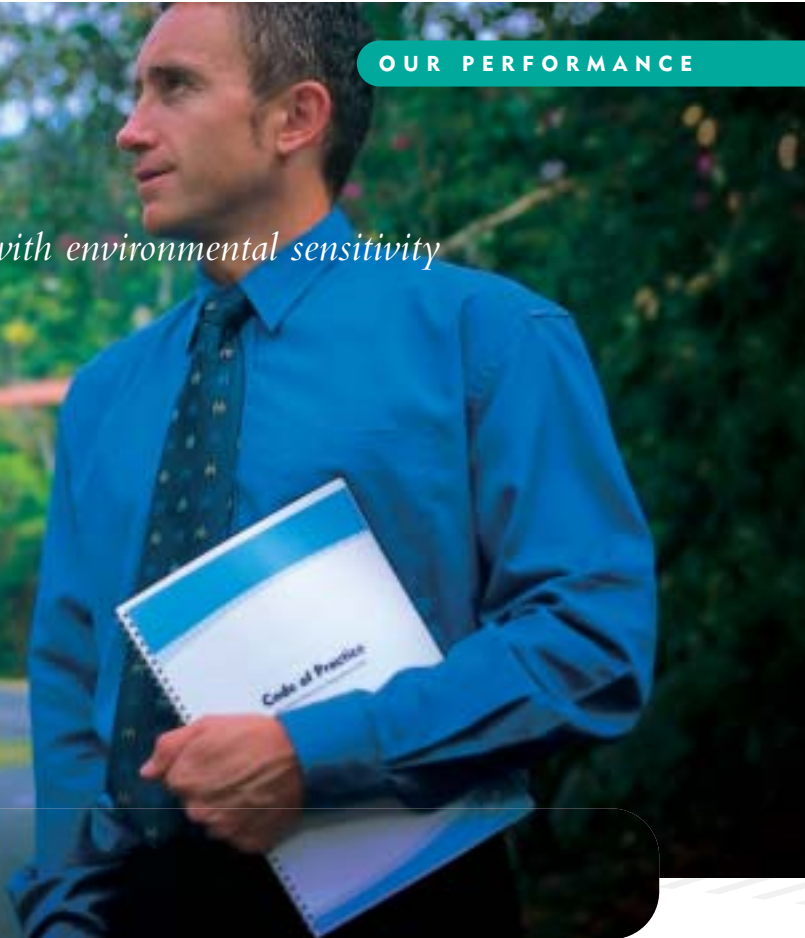
Promoting energy efficiency

We encourage our customers and the community to adopt energy-efficient practices through our website, brochures and our suite of Energy Saver products. Our online do-it-yourself household energy audits help our customers evaluate their energy usage in each room of their house to find where efficiencies can be improved and savings made. Ergon Energy also encourages customers to visit the website at www.ergon.com.au for energy saving advice.

This year, Ergon Energy promoted a suite of Energy Saver products to help customers reduce energy consumption. The suite includes:

- a range of light globes that use up to 80% less electricity
- energy-efficient showerheads that use 9 litres of water per minute as opposed to 23 litres by conventional showerheads
- kitchen sink tap aerator
- solar hot water systems.

Operating *with environmental sensitivity*



Vegetation safety a priority

Through our vegetation management program we identify trees that could cut electricity supply or potentially pose a safety risk to the community and carry out pruning or removal. To ensure this vegetation management work is conducted in an environmentally sensitive manner and is in accordance with the Australian Standard AS 4373:1996, Pruning of Amenity Trees, we require all our contractors and subcontractors to be quality assured.

Last year, Ergon Energy commenced an extensive community consultation program to develop improved vegetation maintenance practices and procedures. We sought customer and public feedback through meetings with statutory and other relevant authorities, presentations, and a series of focus groups across the State. The feedback gained through this consultation process has assisted Ergon Energy to develop a code of practice, which reflects community expectations and will standardise our operations through all regions.

The primary objectives of the code are to: ensure public safety; minimise vegetation-related interruptions to electricity supply; reduce the risk of fire; and establish management practices which balance electrical safety, reliability of the electricity system and community costs, with conservation values.

Our vegetation management program takes into account our distribution area which covers a range of terrain - from arid western country to World-Heritage listed rainforests. Vegetation management staff and contractors undergo a rigorous training program and are equipped with an extensive field handbook for their operations in powerline corridors in the Wet Tropics World Heritage and fish habitat areas. Individual environmental management plans have also been developed for powerline corridors in these areas.

We are now working with the Queensland National Parks and Wildlife Service to develop a protocol for works in national parks and forestry areas.

Recently, we restructured our vegetation management program to centralise works into one core group. Previously functions were spread across six regions of the State. By centralising vegetation management into one dedicated team of highly skilled staff, we are improving works planning, as well as the management of stakeholder and contractor issues. This structure will also help ensure work standards are consistent across the company and will assist in identifying procedures for continuous improvement. Already, we have achieved improvements in program planning and scheduling, and a higher quality of contract management that has resulted in an improved safety and environmental record for contractors and subcontractors. Importantly we have developed communication management plans to build open relationships with all our stakeholders.

During the year a new partnership was established between Ergon Energy and Greening Australia. The partnership will add benefits to our vegetation management - such as helping to negotiate tree species selection with local councils, the management of remnant and native vegetation, and re-seeding of rural easements. The latter is important as 75% of Ergon Energy's 140,000km of network is rural. The partnership also involves corporate sponsorship of planting and rehabilitation days, as well as Greening Australia going into schools on behalf of Ergon Energy to discuss electrical safety, tree safety and tree planting.

Improving the management of hazardous substances

Electricity infrastructure transformers contain oil which can contain polychlorinated biphenyls (PCBs). In the past, PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they do not burn easily and are good insulators. However, there is recent evidence that PCBs build up in the environment and can cause harmful health effects.

Ergon Energy is committed to phasing out the use of PCBs and ensuring that any PCB-containing oil is properly handled. To assist, we have developed standard work procedures for trackable waste management and appropriate training with staff and contractors. During the year over 217,000 litres of oil was recovered from redundant equipment or equipment under repair and disposed of at a licensed facility. Replacement oil contains less than 2 parts per million of PCBs.

Investment reduces contamination risk

Ergon Energy continued a transformer bunding program during 2001/2002 with \$246,000 spent on retrofitting retaining walls (bunds) in substations identified to have a higher risk of land contamination. Oil and fuel storage, leaks and spills can cause soil and groundwater contamination if not properly controlled. The bunding ensures that potential contaminants are contained in the event of a leak or spill.

In addition, during the year emergency preparedness exercises were conducted and a number of disused underground fuel storage tanks were removed.

Addressing community concerns

Ergon Energy recognises that there is concern within the community about Electromagnetic Fields (EMFs) and is committed to addressing this concern by:

- practising prudent avoidance when designing and siting new generation, transmission and distribution facilities
- conducting monitoring and analysis of EMF levels associated with the existing network
- responding to inquiries from the community and distributing information material
- continually monitoring engineering and scientific research and reviewing policies in light of the most up to date research findings with particular emphasis on the findings of scientific review panels.

Information on Ergon Energy's emissions to air, land and water from remote generation sites are reported in the National Pollutant Inventory. The information is publicly available on Environment Australia's website at www.npi.ea.gov.au.

Working with our communities

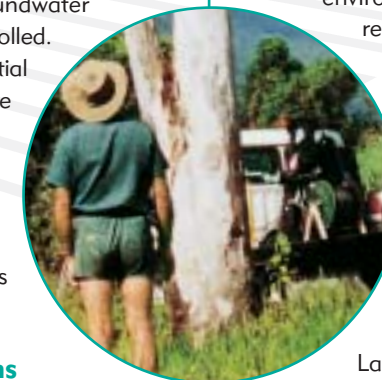
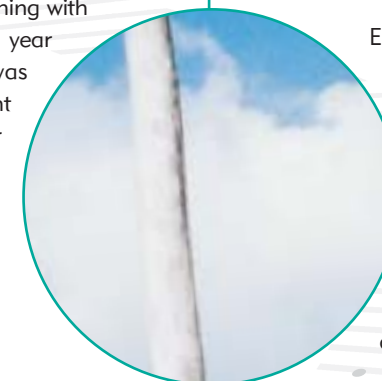
Ergon Energy has provided support to regional communities via environmental sponsorship initiatives, from significant partnerships with groups such as Greening Australia, Keep Australia Beautiful, and Clean Up Australia, to smaller local initiatives through Landcare groups and school projects.

Broadly, our support for environmental activities aims to achieve the following objectives:

- extend Ergon Energy's presence in regional Queensland communities and build its reputation as an environmentally-responsible organisation through a high profile, relevant, and community-driven program
- help to create an environmental culture within Ergon Energy
- engage regional communities (including local councils) in environmental activities and help to build relationships with key stakeholders.

Some of the smaller groups Ergon Energy supported through sponsorship and staff participation included;

Wet Tropics Volunteers; North Keppel Island Environment Education Centre; Magnetic Island Nature Care Association; Independent Wildlife Carers Association; Crows Nest Shire Council Environment Photographic Competition; Wowan Dululu Landcare Group; Daradgee Environmental Education Centre; RAPS and Renewable Energy Conference (Cairns); Botanic Gardens Festival; and, Magnetic Island Wildlife Reflector Trial Group.



Our staff worked with Wet Tropics volunteers installing owl nesting boxes over 15 metres in the air to provide vital habitats for endangered species.

Our commitment to the Future

We encourage innovation and will continually work to improve our environmental performance. Our aim is to continue our progress towards the principles of sustainable development. We will develop our future approach consistent with national and international standards by working closely with the Electricity Supply Association of Australia (ESAA) and other relevant agencies.

In the short to medium term, Ergon Energy will focus on the following:

- improving operating efficiency
- achieving and maintaining environmental excellence
- reducing greenhouse gas emissions
- developing a culture of supply and end-use efficiency
- developing performance indicators, objectives and targets to measure our progress
- better integrating environmental, social and economic issues related to our business
- reporting on the 'triple bottom line' - environmental, social and economic performance.

Main Office | Locations

Cairns

109 Lake Street
CAIRNS QLD 4870

Townsville (Registered Office)

34-46 Dalrymple Road
GARbutt QLD 4814

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Cnr Gordon and Gregory Streets
MACKAY QLD 4740

Rockhampton

Cnr Fitzroy and Alma Streets
ROCKHAMPTON QLD 4700

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MARYBOROUGH QLD 4650

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