MEETING THE GREENHOUSE CHALLENGE

Laytrobe Valley Task Force

Edison Mission Energy • Energy Brix Australia • Hazelwood Power • Loy Yang Power • Yallourn Energy

HAZELWOOD POWER

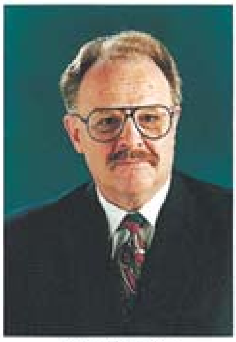
EDISON MISSION ENERGY
An EDISON INTERNATIONAL Company

ENERGY BRIX AUSTRALIA

YALLOURN

LOY YANG power

Cr. Darrell White



Barry Dunstan

Darrell White

The La Trobe Shire Council is committed to the objective of a sustainable future for the local, the Australian and the world community. This is recognised by a key goal of the Shire's Corporate Plan that states:

> *We will support programs of environmental research and management to further improve the local environment and facilitate the exporting of environmental technologies, products and services based on our community's unique experience and capabilities in industrial environmental management.*

I am therefore pleased to pledge the full support of the Council to the Greenhouse Challenge project and commend each of the participating generating companies for working together to enable this critically important issue to be addressed.

It must be recognised that a sustainable future will only be created through an effective partnership between industry and the broader community. The Greenhouse Challenge is a significant move forward and I am confident, through careful management by all who utilise our precious resources, a prosperous and sustainable future for our children and our children's children can be a reality.

Cr. ***Darrell White***
Mayor, La Trobe Shire Council

Barry Dunstan

Since its inception in September 1995, the Latrobe Valley Task Force has been committed to using its collective strength to examine all regional greenhouse mitigation opportunities. Its membership includes the most significant contributors of greenhouse emissions in the Latrobe Region, the five power generators – Edison Mission Energy, Energy Brix Australia, Hazelwood Power, Loy Yang Power and Yallourn Energy.

From encouraging a wide range of research programs into clean coal technology to raising public awareness on greenhouse issues, Task Force members have sought to work together for mutual and regional benefit and recognise their responsibility to assist in the mitigation of the Region's contribution to greenhouse emissions.

As Chairman, I can see first hand the progress Task Force members are making towards mitigating emissions, and encourage their improvements in electricity generation practices and technologies, expansion of plantation forestry, energy research and development, operational practices and public education programs.

We recognise the crucial importance of developing best practice standards for the environment. Our unique and positive response to the Commonwealth Government Greenhouse Challenge provides a substantial opportunity for the combined Task Force members to address greenhouse issues on a wider front than is possible as individuals.

It is important to note that whilst the Latrobe Valley generators are now stand-alone, competitive businesses, they share a common goal to mitigate greenhouse emissions and have developed detailed industry programs which are contributing to the overall regional greenhouse abatement agreement.

Professor ***Barry Dunstan***
Chairman, Latrobe Valley Task Force

POWER IN THE VALLEY

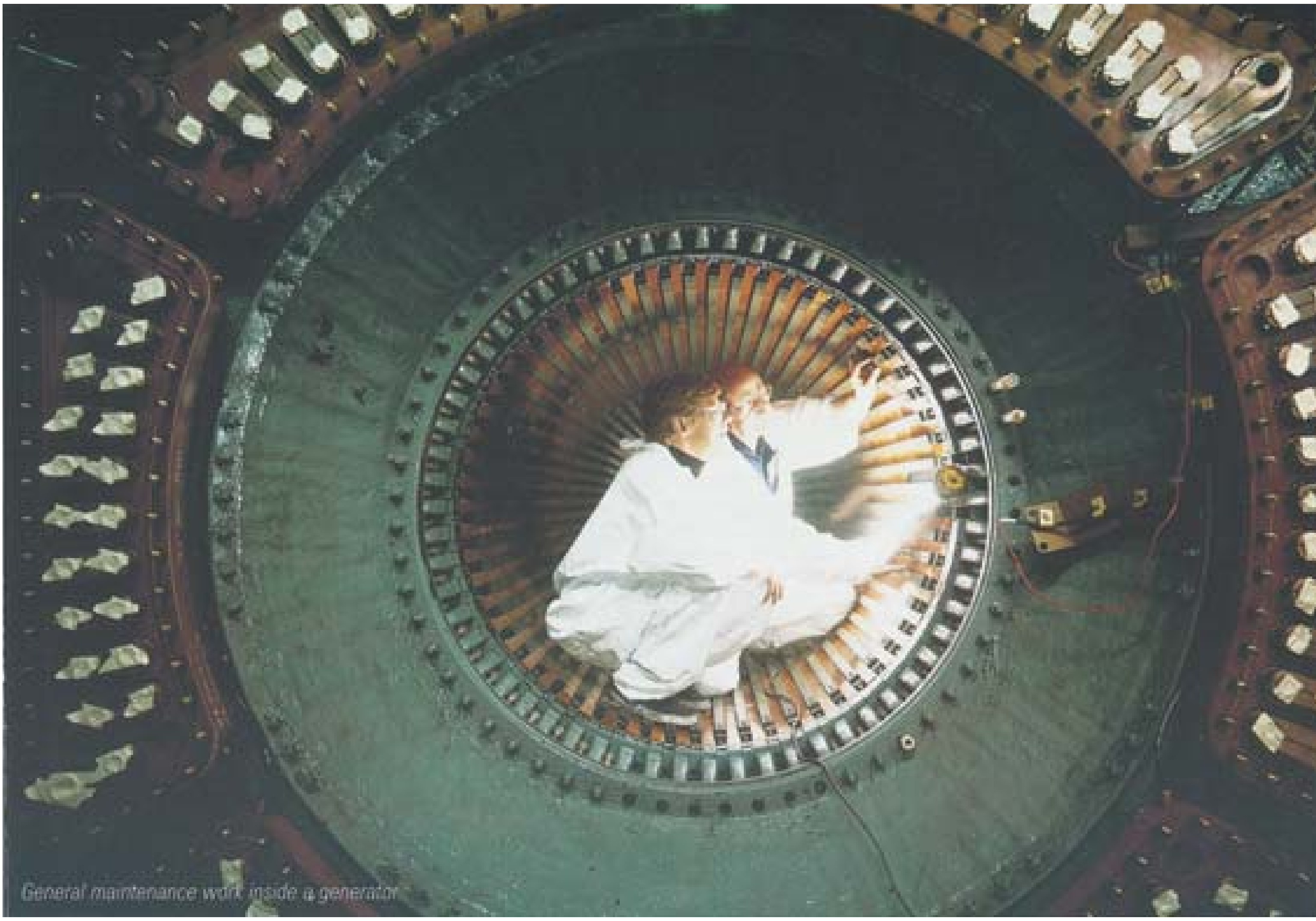
Supplying 85% of Victoria's total power needs, the five Latrobe Valley-based generators – Edison Mission Energy, Energy Brix Australia, Hazelwood Power, Loy Yang Power and Yallourn Energy – are an integral part of our way of life, and of the Valley.

Mining of brown coal in the Latrobe Valley began in 1924 and, through the Latrobe Valley generators, currently contributes more than $400 million to the region's economy per annum. At current levels of power generation, Victoria's enormous brown coal resources will be available for hundreds of years to come.

Whilst not a renewable resource, brown coal is the only economically viable power generation source currently available in Victoria. Although demand for power supply continually increases with the growing population, the environmental cost of excess power production must also be taken into consideration. The Latrobe Valley generators are committed to research and development into ways to improve production efficiency and mitigate greenhouse gas emissions.

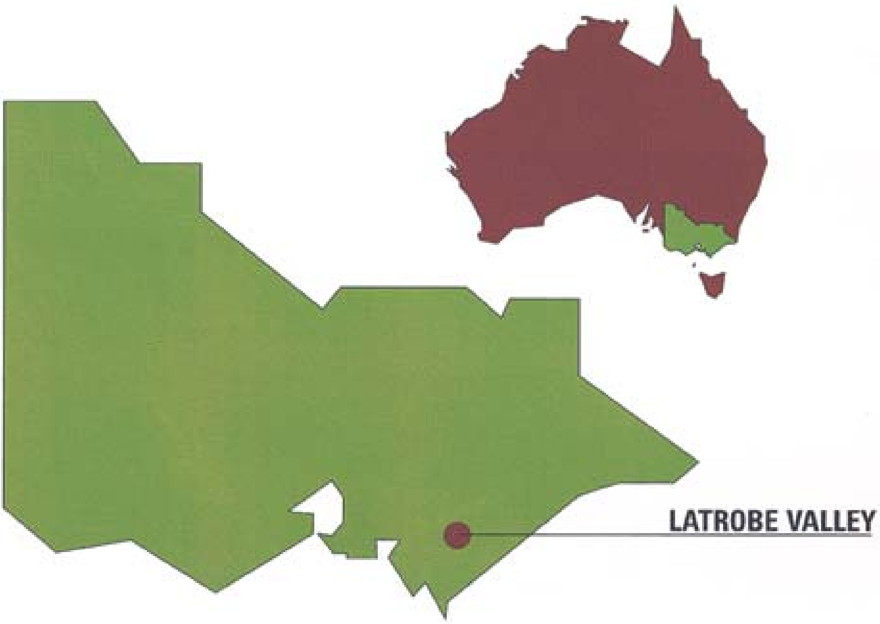
Other companies in the Latrobe Valley, such as HRL Limited, are currently investigating methods of meeting these aims. The construction of a 10 megawatt-scale Coal Gasification Development Facility in Morwell for a syndicate of private investors is being watched with interest by the generators as the way of the future in power generation.

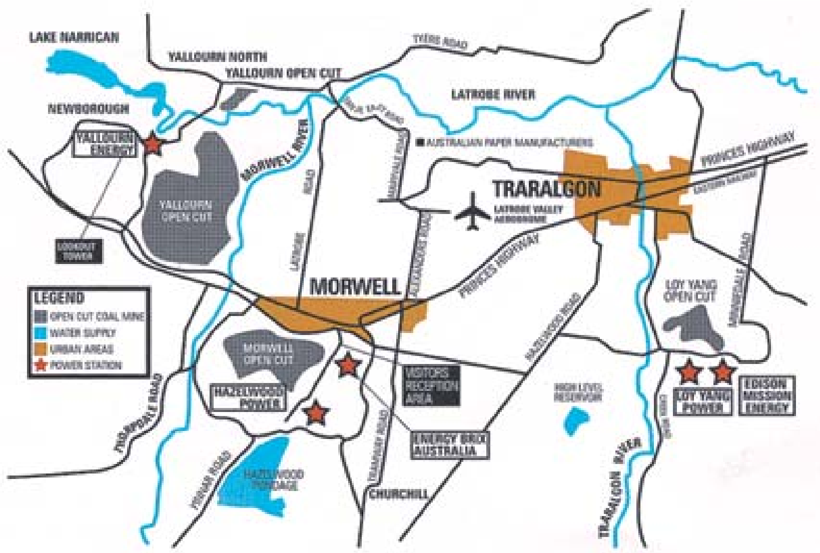
Research conducted by HRL at the facility is being used to prove new high-efficiency power generation technology for brown coal – Integrated Drying Gasification Combined Cycle (IDGCC). Power stations using this technology in the future are expected to be more efficient than conventional black coal plants (10% less greenhouse gas emissions), delivering 30% less CO_2 than existing brown coal-fired stations.



General maintenance work inside a generator

The total greenhouse gas emissions of the five key power generators' operations is approximately 46,777 kilotonnes of CO_2 equivalent gas per annum, representing approximately 7.5% of Australia's total emissions. An 'aggregate' saving of 1,139 kilotonnes of CO_2 is to be achieved by the year 2001/2 through the actions stated in the Greenhouse Challenge agreement.





The technology used at the IDGCC facility is part of the long term vision for the industry – the cleaner, greener, more efficient and cost-effective production of power.

Research and development programs, combined with greenhouse gas emission mitigation strategies, have long been a part of the corporate values of the Latrobe Valley-based generators. The latest initiative has been to join the voluntary call to action – the Greenhouse Challenge.

THE GREENHOUSE CHALLENGE

The Greenhouse Challenge is a cooperative effort by industry and government to reduce greenhouse gas emissions through voluntary industry action. Participation in the Challenge is through cooperative agreements between the government and industry participants such as the Latrobe Valley Task Force.

The objective of these agreements is to capture the capacity of industry to abate its greenhouse emissions, mainly by improving its efficiency in energy use and processing. A successful program will mean that Australia is developing sustainable strategies that respond effectively to climate change while enhancing Australian industry competitiveness.

More than 160 companies and industry associations have become part of the Challenge to date.

LATROBE VALLEY TASK FORCE

The Latrobe Valley Task Force is a voluntary action group comprising the major industries in the Latrobe Region of Gippsland, Victoria. The Task Force has a membership representing local industry, federal, state and local government, TAFE, Monash University and the Gippsland Trades and Labour Council.

The Task Force works together for mutual and regional benefit. The regional community has recognised the crucial importance of developing best practice standards for the environment and has incorporated this goal into the La Trobe Shire corporate plan.

Taking up the Challenge

The Latrobe Valley Task Force presented the Commonwealth Greenhouse Challenge Office with a regional approach to addressing the mitigation of greenhouse gas emissions within the Latrobe Valley.

The initiative was considered to be a unique and positive approach providing an opportunity for the joint members to address greenhouse issues on a wider front than is possible as individuals.

Since it's inception, the Latrobe Valley Task Force has worked with the Latrobe Region's electricity generators to encourage the continuation of wide ranging research programs into new coal technology along with other initiatives aimed at raising public awareness on greenhouse issues. The Task Force is committed to using its collective strength to examine all regional greenhouse mitigation opportunities.

Joint Activities

One element of its public education program has been the establishment of the 'PowerWorks' facility which is a comprehensive education display on electricity generation. The facility, which is owned, operated and financed by Yallourn Energy, Loy Yang Power and Hazelwood Power is currently being expanded to form a "National Energy Showcase". The showcase will exhibit all aspects of power generation, including environmental issues such as greenhouse gas emissions, and feature the five Latrobe Valley power generators as well as other major companies and industry bodies.

The five electricity generators formed a sub-group within the Latrobe Valley Task Force to develop and jointly finance investigations into detailed industry programs designed to mitigate greenhouse gas emissions.

These joint investigations will explore a number of strategies and developments, including:

- Enhanced Generation Practices – examine incremental plant improvements to current electricity generation practices to minimise greenhouse gas emissions.
- Improved Generation Technology – pursue new technologies to further optimise electricity generation efficiencies.
- The Establishment of Carbon Sinks – consider the development of extensive forest plantations in conjunction with environmental and conservation groups for the absorption of carbon dioxide.
- Productive Use of Carbon Dioxide – research the harnessing of carbon dioxide waste emissions for the production of carbon based products.
- Overseas Energy Technology Audits – cooperative government organised "technology audits" of Asia-Pacific region Power Stations where low rank coal is burnt without the "world best practice " efficiencies of the Australian low grade fuel (brown coal) technology.

Monitoring and Review Process

In addition to its quarterly review of progress, the Latrobe Valley Task Force is committed to an annual "Think Tank" workshop. Members will be briefed on global greenhouse initiatives being successfully undertaken by industry worldwide and collectively develop a framework of initiatives to be researched over

the following twelve months. Progress of achievements against these initiatives will be reviewed quarterly.

The Latrobe Valley Task Force is committed to annually report on greenhouse gas emission reductions achieved by the five electricity generators to the Greenhouse Challenge Office.

Vision

The Latrobe Valley is rich in research organisations and companies that are already pushing forward on new technology associated with power production and improved environmental technology and training.

Some examples of these are HRL Limited (Integrated Drying Gasification Combined Cycle technology for brown coal), Ceramic Fuel Cells Limited, Generad, Green Inc., Universal Greening Australia, Monash University Churchill Campus, Energy Education Australia. Many of these companies or organisations are already active participants within the Latrobe Valley Task Force.

In conjunction with the links to training and technology transfer to China and other developing nations, the scope for world-wide greenhouse gas emissions improvements is very promising, not only in Australia but elsewhere, probably as actions implemented jointly.

The vision for the Latrobe Valley Task Force, in relation to the Greenhouse Challenge, is to use this wealth of research and development and technology skill-base to make significant contributions to greenhouse issues across the globe. By doing so this will also make a significant contribution to the economy of the region and further strengthen its greenhouse gas improvement credentials.

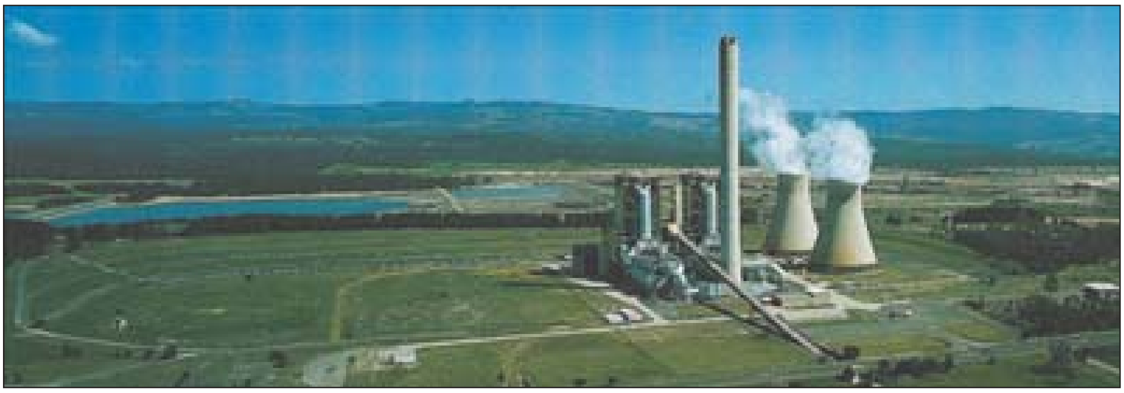
EDISON MISSION ENERGY

- owns and operates the Loy Yang B power station
- investor in 58 separate power projects around the world
- employs 126 people
- provided generation capacity of 6762 gigawatt hours to the National Electricity Market in 1996/97

We have a strong commitment to improving the environmental performance of our operations. We view the Greenhouse Challenge as a good opportunity to further this goal.

We have reviewed our production efficiencies and Greenhouse performance and have resolved to undertake a number of actions to ensure that the greenhouse requirements will be routinely assessed and incorporated throughout our business development process with employee support and contractor compliance.

New initiatives will be considered where they are technically and commercially feasible. We will act to anticipate and respond to community interests and concerns about the impact of our operations on the environment, as a part of our aim to be a responsible global citizen.



Emission Levels

Our single unit operation produced 4.7 million tonnes of CO_2 equivalent gas in 1994/95 and, in the most recent year 1995/96, 4.5 million tonnes of CO_2 equivalent gas. These changes reflected movement in output, with rates of emission being a constant 1.23 tonnes CO_2 per megawatt hour.

Action Plans

Prior to joining the Greenhouse Challenge, we undertook a number of projects to improve energy efficiency that have contributed to greenhouse gas emission abatement. These included the reduction of nominal air heater exit temperature, reducing fan power consumption, the stopping of unnecessary loads in ID fan cooling water pumps, lowering precipitator power consumption, and installing more efficient feed pump motors.

These actions have helped Loy Yang B remain at design thermal efficiency, and better than design intent for internal energy efficiency.

We seek to build upon the experience gained in these past actions by focusing on maximising and sustaining the already high efficiencies, continuing to search for technical innovation in power production and environmental management, and involvement in regional landcare and forestry programs.

Specifically these actions involve:

- reduction in station lighting and air conditioning, representing an energy saving of 937 megawatt hours and emission reductions of 1,064 tonnes CO_2 per annum
- use of nitrogen inerting for Auxiliary Fuel Plant. A feasibility study will be conducted by the site in 1997 which may displace the 200 tonnes of CO_2 per annum currently used for this purpose
- acquisition of a Control Room Simulator (at a cost of $2 million) to maintain and enhance Operator diagnostic skills and plant operating efficiencies
- incentive scheme, to provide bonuses to staff who improve energy efficiency and thereby reduce emissions
- research and development – HRL Technology Pty Ltd, on our behalf, will undertake a preliminary feasibility study to determine the technical and financial viability of partially pre-drying brown coal with a consequent improvement in plant thermal efficiencies and a reduction in CO_2 emitted
- investigating replacing the pulverised dry coal used as start-up fuel with the more greenhouse friendly natural gas
- launching a major land-care and forestry program in the Gippsland Region aimed at planting an initial 40,000 trees with voluntary community and local government support.

Forecast Emissions and Savings

By adopting the above actions the rate of emission for the two generator units will be stabilised at their 1994/95 level of 1.23 tonnes of CO_2 per megawatt hour, giving expected total emissions in the year 2000 of 9.5 million tonnes of CO_2.

It is important to note that Loy Yang B is currently at the maximum peak efficiency of current applied brown coal technology. This means that the range of actions to further decrease emissions are very limited. Further quantifiable improvements in greenhouse gas abatement are expected as new opportunities are identified through improved management and completing investigations.

Vision

In achieving the highest levels of thermal efficiency for any brown coal producing plant in Australia, Loy Yang B is already showing leadership in the use of this fuel. We remain committed to enhancing this leadership through retaining these high efficiency levels throughout the operating life of the power station.

ENERGY BRIX AUSTRALIA

- Australia's largest co-generation manufacturing complex
- produces both electricity and brown coal briquettes
- heat exhausted from the generating turbines is used to dry brown coal in the briquetting process, delivering significant energy efficiencies
- 170 megawatt capacity and can produce 700,000 tonnes of briquettes per year
- employs around 280 personnel
- part of the HRL Limited Group of companies

- briquettes are a low moisture, high energy fuel made from dried and compressed brown coal and are primarily used for industrial boiler fuel with a small local domestic heating market
- over 95,000 tonnes of briquettes were exported last year, predominantly to Germany
- low sulphur, nitrogen and ash levels make the Australian briquette a more 'environmentally friendly' product than the European equivalent

We have allocated specific resources to the Greenhouse Challenge project to ensure that implementation is managed and monitored. The process has revealed that we can make a difference and that the pursuit of environmental goals is aligned with efficiency and profitability objectives.

We have recently achieved an improvement of boiler performance back to design specification levels. The refurbishment of the boilers, at a cost of $5 million, has resulted in a 2% improvement in thermal efficiency. Based on 1995/96 figures, this reduces our coal burning requirements by approximately 25,000 tonnes per year.

Emissions

As Australia's largest co-generation operation, we have a thermal efficiency rating higher than even the most modern brown coal generation plant. Total net CO_2 equivalent emissions for 1995/96 were 1,264 kilotonnes and 1996/97 net emissions were 1,729 kilotonnes. This 36.8% increase in emissions was due to the growth of our business – our electricity production grew by 38.1% and our briquetting production grew 10.2% for the same period.

Action Plans

Technical projects planned over the next three years to further reduce our greenhouse emissions are:

NO. 1 Turbogenerator Low Pressure Heater Group Refurbishment

This project has the greatest potential to significantly reduce greenhouse emissions. The heater group is designed to heat condensate extracted from No. 1 Turbogenerator's condensers. The heater group is currently being refurbished to original specifications, improving the efficiency and delivering on going reductions in CO_2 emissions of 14,800 tonnes per annum.

Boiler Oxygen Level Monitoring Upgrade

This project will deliver our second largest CO_2 emission reduction. Monitoring the oxygen level in the combustion zone of the boiler is a very good indicator of combustion efficiency. We intend to replace our existing equipment with the most modern available, improving boiler efficiency and providing ongoing emission reductions of 9,900 tonnes of CO_2 per annum.

Electric Pump Modifications

The replacement of existing motors with variable speed drive motors, and modifications to oversize pumps, will deliver energy savings equivalent to an ongoing reduction in CO_2 gases of 6,410 tonnes per annum.

Energy Audit

We will conduct a comprehensive independent energy audit of all our facilities and report the results in our first annual report.

Forecast Emissions and Savings

Without taking the positive actions included in the our action agreement, total baseline CO_2 emissions by the year 2000 would be 1,955 kilotonnes. Implementation of our action plan would reduce total emissions by 67.8 kilo tonnes, representing a 3.5% decrease. 'In-house' emissions would be 264 kilotonnes if no actions were taken. Implementation of our action plan is predicted to reduce 'in-house' emissions by 20.14 kilotonnes, representing a 7.63% improvement.

The above emission savings are derived from committed technical actions. We are also focusing on a range of actions such as staff awareness training and management procedures which will have a positive, though hard to measure effect.

Vision

Longer term projects, such as the use of natural gas rather than fuel oil for boiler start ups and stabilisation, have the potential for a significant positive impact on our future operation and greenhouse gas reductions. These projects will be progressively assessed to determine their suitability. As part of the HRL Limited group, we are well positioned to take advantage of any opportunities which arise from research in the greenhouse area and we remain committed to do what we can in our operations to protect the environment.

Hazelwood Power

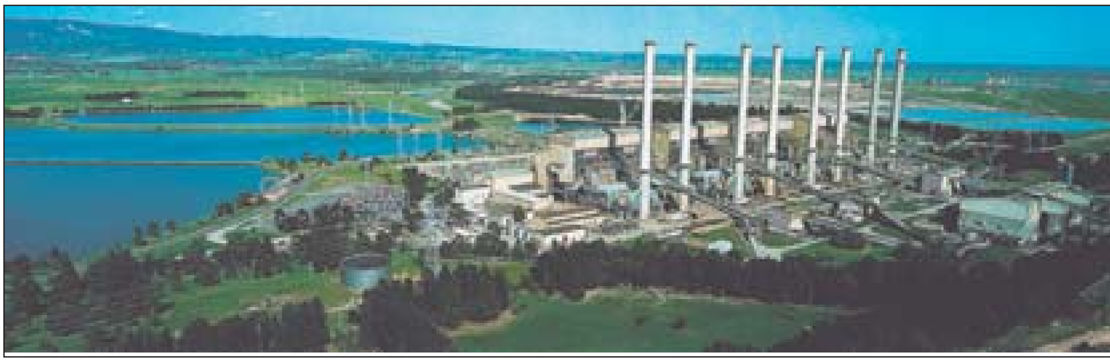
- operates the 1600 megawatt Hazelwood Power Station and adjacent open cut mine in Morwell, Victoria
- owned by National Power (UK), Pacificorp (USA), AES (USA), and The Commonwealth Bank Group
- employs 580 people
- turnover of more than $260 million
- produces electricity from a low sulphur brown coal that is greenhouse gas intensive due to its high water content

Our view is that any ability to reduce greenhouse gases also improves our operations. The Greenhouse Challenge provides a valuable opportunity to audit and assess available actions to improve performance.

We have adopted a dual approach to the Greenhouse Challenge – technology improvements to increase plant efficiency, and mitigation strategies to further reduce environmental impacts.

Total company commitment was the key to the development of our co-operative agreement, with Board of Directors, CEO, and senior management involvement. Emissions were audited by an external expert and findings married to our action plans to gain a picture of our future decreased emissions impact as a result of the greenhouse initiatives.

An independent benchmarking study was also undertaken which compared us to similar operations elsewhere in the world – confirming that all cost effective measures were included in our action plan. We have committed to regular auditing of our operations to ensure we do not miss opportunities to stay at the forefront of our technology.



Emission Levels

During 1995/96 Hazelwood Power exported 5,783 gigawatt hours (GWh) of electricity, using 9.55 million tonnes of coal, plus other auxiliary fuels, leading to emissions of 9.45 million tonnes of CO_2. This level of emissions is 2.9 million tonnes less than that produced in 1990, reflecting lower electricity generation.

We are investing over $37 million over the next five years to reduce or offset our greenhouse gas emissions by 920 kilotonnes of CO_2 per year.

Action Plans

Action plans to achieve emissions reduction include:

Power Station

- improving pressure turbine seals to reduce emissions by over 11.8 kilotonnes of CO_2 annually, improving station thermal efficiency by 1.0%
- sealing boilers against air leaks to reduce fuel volumes through better combustion of coal, reducing CO_2 emissions by 189 kilotonnes annually, improving thermal efficiency by 2.0%
- improving air heaters to reduce CO_2 emissions by 189 kilotonnes annually, improving thermal efficiency by 2.0%
- installing advanced technology High Pressure Turbine modules, reducing emissions by 189 kilotonnes of CO_2 annually, improving overall station efficiency by 2.0%

In-house Energy Use

- introducing a goal of 10% reduction of internal power consumption, saving 72 gigawatt hours per year and 104.4 kilotonnes of CO_2.

Coal Mine

- improving mine operational efficiency by reducing water pumping via increasing artesian water levels, installing additional solar panels, control of conveyor sprays, regeneration from downhill conveyors. These actions will reduce emissions by about 19,000 tonnes of CO_2 annually.

Carbon Sinks

- planting 2,500 additional trees per year to increase our existing forest of 150,000 trees. This will offset 4.8 kilotonnes of CO_2 annually by the year 2000.

Innovative Company Joint Initiative

- investing in a joint venture composting plant, Universal Greening Morwell Pty Ltd. This plant will process 150 kilotonnes of waste per year that would otherwise be going to landfill. Every tonne of waste processed gains an equivalent offset of more than 2.0 tonnes of CO_2, equating to more than 300 kilotonnes annually.

In addition to the emissions audit and benchmarking study, we will conduct a comprehensive independent energy audit of our facilities and publish the results in our first annual report.

Forecast Emissions and Savings

If no actions were to be undertaken, the year 2000 forecast (using 1995/96 base) would be 15.8 megatonnes of CO_2.

The forecast emissions for the whole business after actions are 15.1 megatonnes of CO_2, which represents a reduction of 731 kilotonnes, or 4.6%.

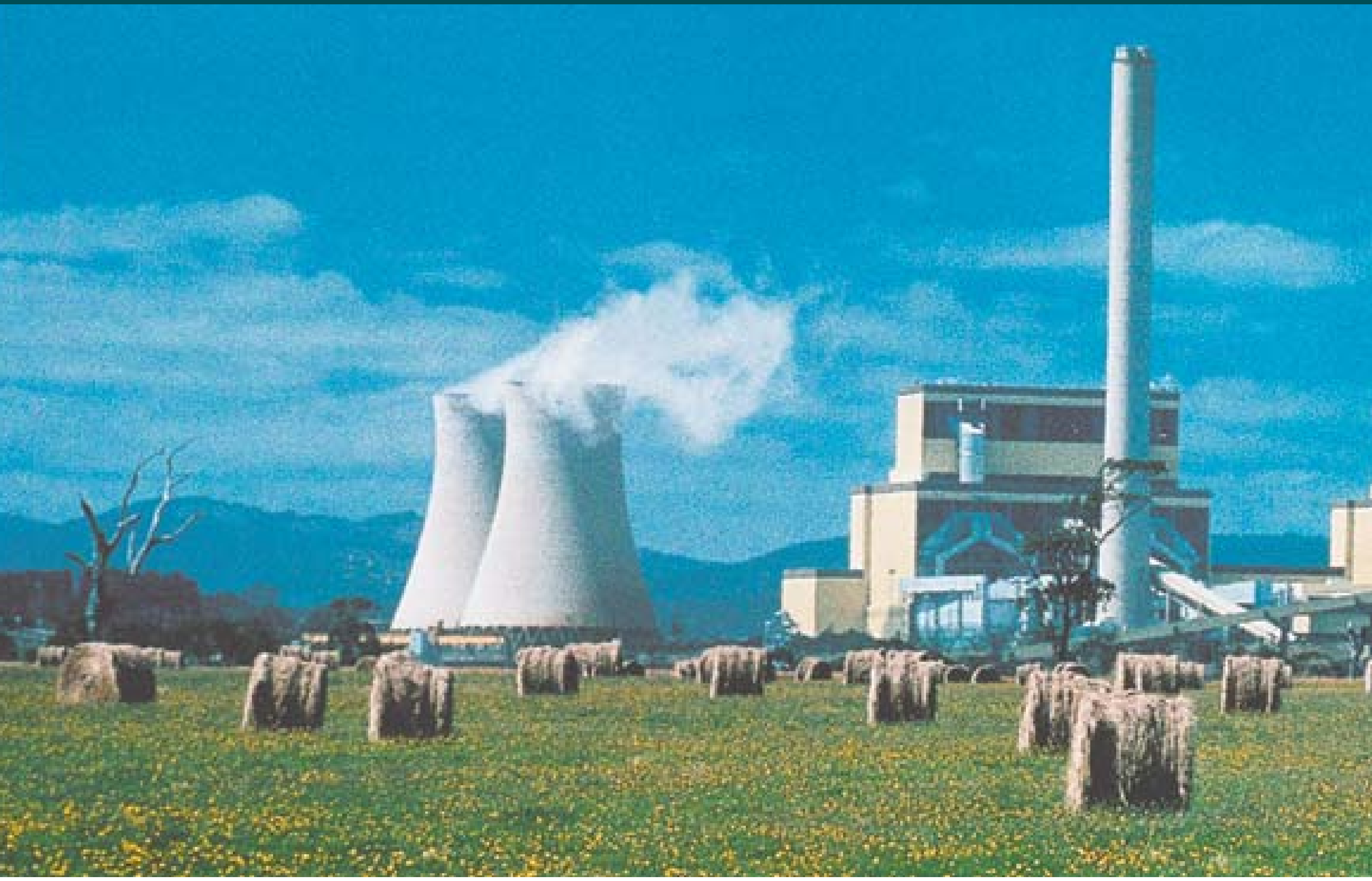
Year 2000 emissions are forecast to be greater than current emissions due to business growth and the changed role that our type of generating plant now fills in the National Electricity Market.

Vision

Our goal is to reduce greenhouse gas emissions in net real terms, through plant improvements and mitigation strategies.

This vision aims to position us at world's best practice for major brown coal generating plant net greenhouse gas emissions anywhere in the world. It may also see us exceed the performance of other types of fossil fuel source power stations.

HAZELWOOD POWER



LOY YANG P

- purchased in May 1997 by an international consortium comprising CMS Energy 49.4%, NRG 25.6% and Horizon Energy Investment 25%
- the 2000 megawatt power station is Victoria's largest
- contains Australia's largest open cut coal mine which also supplies the Edison Mission power station and a Pulverised Dried Brown Coal Plant operated by Australian Char Pty Ltd
- employs 550 people
- the power station entered commercial production progressively between July 1984 and December 1988, and is operating at world class production and efficiency levels

The Greenhouse Challenge has enhanced existing partnerships with employees and the community, resulting in greater environmental accountability.

We view our participation as an essential element in business improvement – providing a catalyst to review energy efficiency and upgrade maintenance practices.

The Greenhouse Challenge Cooperative Agreement was prepared under the direction of the Chief Executive, and has the Board's approval and support. Senior environmental, engineering and corporate relations staff were responsible for preparing the action plans using external consultants and these plans were independently reviewed and benchmarked against original design intent and world's best practice.

Emission Levels

Baseline year (1995/96) total emissions were 17.4 millions tonnes CO_2 compared with 16.3 million tonnes in 1990/91. While a number of abatement programs were adopted during this time, the level of emissions reflects not only an increase in electricity generation but also a significant increase in consumption of poorer quality coal.

Action Plan

The ongoing performance, engineering, and cost reviews conducted at the power station and mine have been so successful in optimising plant and business performance that Loy Yang Power is now the lowest cost producer in the National Electricity Market. Many of the actions contained within our agreement are based on these reviews.

These improvements, together with the maintenance of thermal efficiency approaching design intent, make our commitment to a comprehensive action plan and significant emissions reduction even more remarkable.

We have also committed to expenditure of almost $60 million on a range of major plant performance and process efficiencies to be implemented over a five year period.

Engineering Improvements

- reduction in boiler tramp air through improved boiler sealing and reduction in ductwork corrosion (saving 291 kilotonnes CO_2 per year in 2000)
- reduction in steam leaks through replacement of boiler blowdown and drain valves (saving 212 kilotonnes CO_2 per year in 2000)
- upgrading of condensers incorporating improved design technology and best use of available corrosion resistant material (saving 118 kilotonnes CO_2 per year in 2000)

OWER

- reblading of turbines with new profile blades (saving 137 kilotonnes CO_2 per year in 2000).

Programs

- local tree plantations (more than 32,000 trees in 1997)
- partnerships with government, regulatory, business and community groups in the development and implementation of environmental programs
- industrial development to utilise the resource and infrastructure advantages of the site
- employee and public education programs.

Research

We continue to make substantial investments in brown coal R&D with the aim of realising major improvements in process thermal efficiency. If this technology can be successfully and economically developed, it will be considered as a future option for refitting the station early in the next century.

Forecast Emissions and Savings

As a result of implementing these greenhouse gas emissions reduction projects, we will achieve the following emissions forecast for the year 2000:

The expected emissions reduction is 4.26% for the Power Station and 3.84% for the Mine compared with emissions that would have occurred if no actions had been undertaken. Expressed in terms of company output, this is equivalent to a reduction from 1.260 to 1.206 tonnes CO_2 per megawatt hour in the Station and in the Mine, from 3.6 to 3.5 kilograms CO_2 per tonne of coal.

	With Actions	**Without Actions**
Power Station	17.639 million tonnes CO_2	16.959 million tonnes CO_2
Mine	104 kilotonnes CO_2	100 kilotonnes CO_2

Vision

We are undertaking extensive life cycle studies of the power station and mine and expect to identify further projects to improve thermal efficiency over and above the post-2000 projects program already planned.

We are committed to implementing a wide range of joint actions – including a unique and comprehensive research and development program, and a variety of other community activities – that will improve energy efficiency and maintain a greater level of environmental accountability.

YALLOURN ENERGY

- owns and operates a 1450 megawatt brown coal fired power station, and an open cut coal mine
- employs nearly 600 people
- supplies an equivalent of 25% of Victoria's electrical energy
- owned by the PowerGen-led consortium known as AusPower which also has a 40% stakeholding by Australian institutional shareholders
- an independent power producer, supplying electricity through the National Electricity Market
- the first Victorian power station to be fully privatised

Since 1990, we have achieved efficiency improvements of more than 5%, with a consequential reduction in greenhouse emissions. Our participation in the Greenhouse Challenge is one part of a broad range of environmental focus areas. Implementation will be managed under the processes of our Environmental Management System, with the actions implemented through our works program.

Under the guidance of the new owners of Yallourn Energy, we completed extensive lifecycle studies of the power station and mine – at a cost approaching $1 million – which will be updated on an annual basis. These studies are used as the basis for identifying projects which also improve thermal efficiency and reduce greenhouse gas emissions.

Emissions

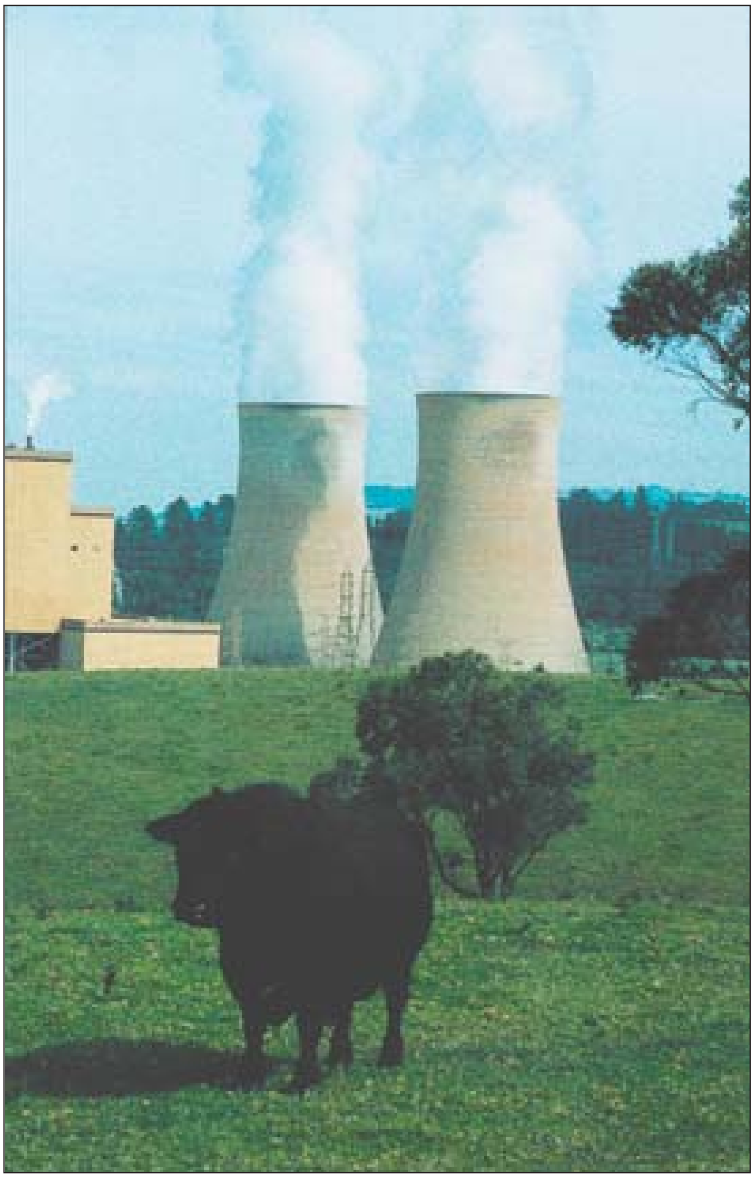
In 1990, our per unit emissions were 1.460 tonnes of CO_2 per megawatt hour of electricity sold and in 1996 this had reduced to 1.384 tonnes per megawatt hour.

Action Plans

We have a strong commitment to reducing emissions and past actions have included:

- becoming the first power company in Australia to be granted an accredited licence by an environmental regulatory authority for the whole of the company's operations
- implementing a range of efficiency measures for greenhouse amelioration resulting in reduction of CO_2 and other greenhouse gas emissions
- implementation of an awareness and training program for employees and contractors, operating under the theme '*The Company and the Environment – What Can I Do to Help?*'
- the publication of a comprehensive 'Environment Report' analysing our overall performance.

From a Greenhouse perspective, these processes have helped employees contribute to the development of new actions which would reduce emissions from the site.



Significant items in our current action plan include major refurbishment work to our stage 2 generation units. A total of over $10 million is to be spent on the generation plant over the next two years. Major activities to be undertaken in the refurbishment will be:

- reducing excess air in the boilers to minimise heat loss
- rewinding electrical generator to reduce waste heat generation
- continuation of mill feeder conveyor upgrade program to reduce cold air flow into the boilers
- introduction of a waste reduction strategy to reduce water pumping energy
- installation of an economiser recirculation line to lower lost heat
- installation of precipitator screw conveyors to reduce ingress of unwanted air
- refurbishment of boiler doors to improve effectiveness of seals.

We will also conduct a comprehensive independent energy audit of our facilities and report the results in our first annual report.

We expect to achieve further reductions through a qualitative action program incorporating:

- improved staff training and awareness
- improved environmental management
- planting at least 40,000 trees annually.

We will continue to make a significant investment into research and development. Major contributions are made through the Co-operative Research Centre for New Technologies from Low Rank Coal, and the Australian Bureau of Agriculture and Resource Economic's GIGABARE modelling project, as well as into subterranean and submarine carbon dioxide storage.

Forecast Emissions and Savings

In the year 2000 we expect to achieve a net reduction in the per unit rate of greenhouse gas emissions to 1.380 tonnes per megawatt hour of electricity sold, or 5.5% below 1990 rates through the above actions. This is a major improvement for an existing plant.

By the year 2000, annual CO_2 emissions are expected to fall from static efficiency forecasts by 100,000 tonnes.

In the year 2002 emission reductions are expected to be 207,000 tonnes of CO_2, lowering the per unit emissions to 1.360 tonnes per megawatt hour, 6% below 1990.

Vision

Our vision is to be a leader in the environmental field, which will assist Australia in meeting its contribution to the world reduction of greenhouse gases. As the electricity market reaches maturity, we expect to progress and re-evaluate these environmental initiatives.