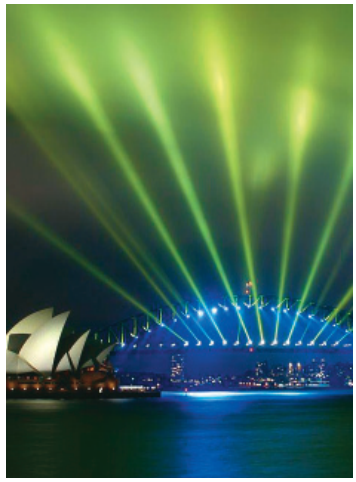





03–04 **ANNUAL REPORT**

SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY OF NSW

SEDA
NSW Government

TABLE OF CONTENTS

DEPARTMENT OF ENERGY, UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

The Sustainable Energy Development Authority (SEDA) was integrated with the Department of Energy, Utilities and Sustainability (DEUS) as of 1 July 2004.

The DEUS office is located at:

Level 17 227 Elizabeth Street
Sydney NSW 2000

Phone: (02) 8281 7777
Fax: (02) 8281 7799

Or on the web:

www.deus.nsw.gov.au
www.energysmart.com.au
www.abgr.com.au
www.greenpower.com.au

DEPARTMENT OF ENERGY, UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

Leadership in energy and water sustainability
for New South Wales

The Hon. Frank Sartor, MP
Minister for Energy and Utilities
Level 31 Governor Macquarie Tower
1 Farrer Place
SYDNEY NSW 2000

Dear Minister

I am pleased to submit the 2003/2004 Annual Report for the Sustainable Energy Development Authority for presentation to Parliament in accordance with the *Annual Reports (Statutory Bodies) Act 1984* and the *Public Finance and Audit Act 1983* and the regulations under these Acts.

The end of this reporting period saw the integration of the Sustainable Energy Development Authority (SEDA) with the Department of Energy, Utilities and Sustainability, effective from 1 July 2004.

During the year, SEDA continued running very successful programs in the commercial, residential, and energy supply sector, during a time of review and change. The achievements made during 2003-04 are highlighted in this annual report.

This report is also a testimony to the SEDA's many important accomplishments over nine years of operation, documenting performance against key indicators, as well as the community and business partnerships forged.

The achievements of SEDA have been generated by a committed and skilled group of people. I would like to take this opportunity to thank them for their hard work and their support, particularly in a period of merger and reorganisation. I look forward to our work together as a single Department encompassing energy management, country town water supply, and sustainability.

Yours sincerely

David Nemtzow

David Nemtzow
Executive Director of SEDA at 30 June 2004
25 October 2004

Level 17, 227 Elizabeth Street Sydney GPO Box 3889 Sydney NSW 2001 Australia
P + 61 2 8281 7777 **F** + 61 2 8281 7799 **E** information@deus.nsw.gov.au **W** www.deus.nsw.gov.au
ABN 43 863 863 906 Printed on Australian made 100% recycled paper

ABOUT SEDA

The Sustainable Energy Development Authority (SEDA) was established in 1996 to reduce energy related greenhouse gas emissions through the NSW Government's Sustainable Energy Development Act 1995. This legislation was part of a package of State electricity industry reforms to optimise quality and service delivery of the NSW power structure.

On July 1, 2004, the program activities of the Authority were integrated into the newly formed Department of Energy, Utilities and Sustainability. The Sustainable Energy Development Act was repealed in Parliament and took effect on 1 July, 2004. However, for the duration of the reporting period the Sustainable Energy Development Authority was an operating legal entity. This is the last annual report for SEDA.

The principle objectives of SEDA for the reporting period as defined by the Act were:

- to bring about a reduction in the levels of greenhouse gas emissions and other adverse by-products of the production and use of energy; and
- to facilitate the development, commercialisation, promotion and use of sustainable energy technology, particularly in those areas (other than fundamental research) where the development, commercialisation, promotion and use of that technology is impeded by lack of appropriate information or finance or by other barriers. (*Sustainable Energy Development Act, cl. 6*)

SEDA's primary role was to ensure that increasing competition in the NSW electricity market delivered environmental as well as economic benefits, in consideration of the global threat of the enhanced greenhouse effect.

During the reporting period, the NSW Government established the NSW Greenhouse Office, within the Cabinet Office. The office is charged with implementing the NSW Greenhouse Strategy, an over-arching framework for reducing greenhouse gas emissions.

SEDA'S VISION

A sustainable energy future that meets the energy needs of a thriving community without compromising the capacity of subsequent generations to meet their own needs.

SEDA'S MISSION

Delivering greenhouse gas reductions, environmental, economic and social benefits to the NSW community by accelerating the transition to sustainable production and use of energy.

A market that has been "transformed" is one where the majority of investors and consumers routinely adopt sustainable energy technologies and services, for the economic and environmental security they provide.

SEDA'S APPROACH

The primary method of achieving results has been through market transformation. A market that has been "transformed" is one where the majority of investors and consumers routinely adopt sustainable energy technologies and services, for the economic and environmental security they provide over conventional energy supply.

This approach requires support and participation from a wide range of NSW energy stakeholders. In the reporting period, SEDA maintained partnerships with industrial and residential partners, commercial and other government agencies to continue work on reducing greenhouse gas emissions.

A suite of operating programs demonstrated voluntary activity by industry, other tiers of government and the community. Since 1996, the work of SEDA and its partners have attracted over $539 million in investment in NSW, delivered greenhouse gas reductions of more than 35 million lifetime tonnes of greenhouse gas, saved NSW energy users $1.3 billion in lifetime energy costs and been recognised as a world leader in sustainable energy development. In addition, the Green Power Accreditation Program, administered by SEDA on behalf of the National Steering Group has stimulated around $191 million in investment and 20 million tonnes of lifetime greenhouse gas reduction in NSW.

WHAT ARE SUSTAINABLE ENERGY TECHNOLOGIES?

Sustainable energy technologies are products, processes, practices and designs, which improve energy efficiency, facilitate the production of energy from renewable resources, or facilitate the production and use of energy in ways that minimise levels of greenhouse gas produced. Sustainable energy technologies covered in this report include solar thermal, solar photovoltaic, wind energy, biomass and waste-to-energy technologies, cogeneration, waste coal mine gases, small scale hydro-electric generation, energy efficient building performance, water saving devices, compact fluorescent lighting options, insulation products and many more. NSW has many natural resources that make it especially conducive to alternate forms of energy generation. Although coal will remain the main source of energy supply for the foreseeable future, expanding our capacity to generate energy from non-fossil-fuel streams provides economic opportunities and crucial environmental benefits and obligations.

SEDA'S TASK

ENERGY AND THE ENHANCED GREENHOUSE EFFECT

Energy is essential to virtually all activities in a modern economy, but the burning of fossil fuels releases carbon dioxide (CO_2) into the atmosphere. It is now well documented that the increasing levels of CO_2 and other gases due to human activity are enhancing the natural "greenhouse effect" provided by the earth's atmosphere. Globally, emissions from burning coal, oil and gas for energy accounts for around one quarter of greenhouse gas in the developed world.

SEDA's mission, to reduce greenhouse gas emissions from the production and use of energy, presents a considerable challenge, particularly as Australia's economy is highly energy-intensive. However, this challenge is also tremendous opportunity to transform the NSW energy market to a sustainable and secure, low carbon leader, whilst fostering a new industry in developing and adopting clean energy technologies and improving environmental protection.

CLIMATE CHANGE

According to the World Meteorological Organisation (WMO) "anthropogenic climate change is the most pervasive and truly global of all issues facing humanity and its poses a serious threat to our environment".[1] There is increased certainty among the scientific community that globally averaged surface temperatures are rising. The rate of change for the period since 1976 is roughly three times that for the past 100 years. In the last millennia, the WMO has stated that the 1990s were the warmest decade, the year 1998 was the warmest year and the 2002 and 2003 were the second and third warmest respectively. Globally, average annual temperatures are projected to rise by between 1.4 and 5.8^{o}C by the end of the century.

The Annual Australian Climate Summary for 2003 produced by the Bureau of Meteorology stated that "The general rise in Australian temperatures during the second half of the 20th century is in line with global warming trends. . .". Our national research organisation, the CSIRO, predicts that there will be warming in Australia of between 0.4 and 2.0 degrees Celsius by 2030, and up to 6 degrees by 2070.

Here in NSW we are already experiencing the effects of climate change. During the 2002 drought the low rainfall was accompanied by the highest mean maximum temperatures on record. The higher temperatures exacerbated the drought because they created increased evaporation and water demand.[2] During the reporting period, NSW remained in the grip of unprecedented drought, with many townships facing severe water shortages.

Around the world, other nations experienced extreme weather, with the heat waves in the European summer (June, July, August 2003) producing the warmest temperatures on record in Germany, Switzerland, France and Spain. The WMO reported that over 21,000 additional deaths were attributed to the unrelenting heat in France, Italy, the Netherlands, Portugal, the United Kingdom and Spain.

A combination of rising sea level and other stresses threaten much of Australia's coral reefs. Decrease in calcification rates of corals from high atmospheric CO_2; coral bleaching due to higher sea temperature; combined with pollution from land run-off; all make the reefs more susceptible to extensive damage from tropical cyclones.

Predicted future impacts for New South Wales include greater risk of fires in urban areas, greater vulnerability to property damage from tropical cyclones and storm surges on the coast, more frequent droughts and higher temperatures for inland regions, and less secure water supplies for cities.[3] The insurance industry predicts higher premiums because of greater risk to property from more frequent flooding.

During the 2002 drought the low rainfall was accompanied by the highest mean maximum temperatures on record.

THE OPERATING ENVIRONMENT FOR NSW GOVERNMENT

In 1997, the international community adopted the **Kyoto Protocol** to the United Nations Framework Convention on Climate Change. The Protocol sets targets for reducing emissions to stabilise atmospheric concentrations of greenhouse gases at safe levels. As a signatory to the Protocol, Australia negotiated a target of 108% of emissions at 1990 levels. However, the Australian government had not ratified the Protocol during the reporting period and had publicly stated its intention not to. The Protocol's international targets come into force when 55 countries ratify, including industrialised countries that, together, account for at least 55% of carbon dioxide emissions in 1990. On October 1 2004, Russia signalled its intention to ratify by seeking permission of the Parliament, which would bring the Protocol into force early in 2005. This would create a trading regime of carbon credits among member countries.

The NSW Government favours the ratification of the Protocol.

[1] Jarraud, M. (2004) Statement on the Occasion of the Opening of the Symposium on Global Change Research, Brussels, Belgium, 6 May 2004.

[2] Hennesy, K, Page, C; McInnes, K; Jones, R; Bathols, J; Collins, D and Jones, D (2004) *Climate Change in NSW Part 1*. Report for the NSW Greenhouse Office.

[3] Pidcock (2003) *Climate Change: An Australian Guide to the Science and Potential Impacts*. Report for the Australian Greenhouse Office.

For its part, key measures introduced by the NSW Government include:

- The **NSW Greenhouse Gas Abatement Scheme** which requires electricity retailers to curb their emissions, and reduce them to 5% below the 1989-90 levels set as the benchmark for the Kyoto Protocol. This is equivalent to 8.65 tonnes of CO_2 per capita in 2003, progressively dropping to 7.27 tonnes of CO_2 per capita in 2012.
- Creation of a **NSW Greenhouse Office** during the reporting period, charged with the implementing a NSW Greenhouse Strategy.
- Introduction of the **BASIX Scheme**, a requirement that new dwellings achieve major energy and water savings.

SEDA'S EXECUTIVE DIRECTOR'S REPORT

I strongly believe that sustainable energy is an idea whose time has come. The NSW Sustainable Energy Development Authority (SEDA) has been a leader in helping that idea become a reality in the energy marketplace.

While this report is the final testimony to the work of SEDA as a sole agency, it is by no means the end to the initiatives and new thinking it triggered. A real measure of success is creating lasting change in only a short period of operation.

SEDA has been influential not only to NSW, but right across Australia and even overseas. The Carr Government showed great vision setting up the Authority, at its time the first government agency in Australia focusing on greenhouse gas emissions. It rightly targeted emission reductions where they would have the most effect as NSW's electricity sector accounts for around one third of the total emissions.

There are substantial results from the programs run over SEDA's lifetime including:

- attracting over $539 million of investment in to the state;
- delivering lifetime energy savings for the NSW community worth over $1.3 billion; and
- reducing greenhouse gases by over 35 million tonnes of carbon dioxide over the life of projects facilitated.

As well as reporting on measurable targets, SEDA's suite of programs was fine-tuned to trigger changes in practice right across market sectors. Activities were shaped around voluntary action and worked with industry leaders, innovators and proponents of Best Practices.

To be able create this change required people who are dedicated and creative. The staff who worked at SEDA over its nine years as an independent Authority have been an incomparable asset – routinely delivering programs that are innovative, best practice and producing results.

These programs demonstrate that sustainability can be synonymous with economic and social advantage and not in competition with those aims. SEDA has shown how a government agency can influence markets to adopt more sustainable practice. Some areas where NSW has led the way in this area are:

- Environmental performance is now a selling point, with competition amongst building owners to attract tenants; thanks to the robust development of the Australian Building Greenhouse Rating Scheme (ABGR) for commercial buildings.
- Green Power in Australia operates to one of the most stringent standards world-wide including a requirement for 80% new renewable energy generation. In 2002-03 voluntary Green Power purchases contributed an extra 23% beyond the Nation's mandatory renewable energy target.
- Other States have followed the SEDA model, establishing the Sustainable Energy Authority Victoria in 2000 and the Sustainable Energy Development Office in Western Australia in 2001.

Further details of case studies of market transformation over SEDA's history can be found in the Section "Objectives and Results: 1996-2004" from page 10. Testimonials from the commercial sector reinforce the effectiveness of SEDA programs:

On 19 October 2004, the Australian Financial Review reported that

> *"Today some of the country's largest, Sydney-based property owners, with huge national portfolios, are converts to sustainability because of SEDA".*

Peter Verwer, Chief Executive of the Property Council of Australia said that

> *"The Australian Building Greenhouse Rating Scheme shows that investors can equally pursue corporate and environmental goals in the pursuit of more ecologically sound cities."*

Peter Torrisi, National Facilities Manager of Colonial First State Property, facilitated the involvement of Commonwealth Bank in SEDA's Energy Smart Business Program, saying,

> *"The most rewarding aspects of being a part of the Energy Smart Business program is achieving the Commonwealth Bank's business goals reflected in both dollar savings through improved efficiencies and the growing staff satisfaction and ownership of these projects."*

The integration of the functions and expertise of SEDA into the Department of Energy, Utilities and Sustainability marks a new stage in the evolution of sustainable energy programs, where they can be incorporated to an arena of policy-making and planning for the future well-being of NSW. The new Department's mission is to embed sustainability along with reliability, safety and affordability into the NSW energy and urban water systems.

NSW's upcoming energy and water challenges will be well served by the expertise and experience that was developed at SEDA.

David Nemtzow
Executive Director of SEDA at 30 June 2004
25 October 2004

"An invasion of armies can be resisted, but not an idea whose time has come."

- Victor Hugo

OBJECTIVES AND RESULTS: 2003-2004

The 2003-04 highlights are listed in the areas of economy, environment and community. This reflects the SEDA 2003-05 Corporate Plan triple-bottom-line structure.

RESULTS FOR THE ECONOMY

During the reporting period SEDA programs stimulated $32 million investment in the sustainable energy industry and saved NSW households and businesses over $78 million on energy bills.

Energy Savings to Households and Businesses

- The final phase of the discount of solar hot water systems saw 2009 residents in Energy Smart Councils redeem their voucher for $500 to $700 off the price of a new system.
- During the reporting period, NSW households saved $2.2 million in lifetime energy savings and reduced lifetime greenhouse gas emissions by over 45,000 tonnes by purchasing and installing solar and heat pump hot water systems.
- Energy Smart Businesses continued to be leaders in the commercial sector, with 11 new businesses joining the program. On average, partners who join the program make a 39% rate of return on their investment.
- SEDA helped 11 business partners to claim an additional financial win from their energy savings activities by brokering NSW Greenhouse Gas Abatement Certificates (NGACs).
- SEDA piloted a new internet-based energy rating tool for existing homes. Targeted promotions in the Penrith and Ku-ring-gai areas resulted in 109 people, over two months, assessing the greenhouse performance of their homes online. A further 80 people outside these areas took advantage of the new online service during this time.
- The pilot program attracted 37 residents who took up the offer of an in-home audit, receiving personal advice on how to improve their energy efficiency and lower energy bills.
- The proportion of the market with the accredited Australian Greenhouse Building Rating in NSW increased from 15% to 20% and nationally from 8% to 11%.
- The wide range of energy efficiency products and services on offer was showcased at the NSW Government Greenhouse Forum and Trade Show.
- The Demand Management Business Unit delivered a reduction in the peak load used by the Castle Hill retail area by 598 kVA.

Creating Investment in Sustainable Energy

- NSW government investment of $3.5 million in energy efficiency, particularly the health sector, during the reporting period will save $550,000 annually for the benefit of the NSW economy.
- The Live Energy Smart program partnered with 11 product manufacturers in the reporting period, representing solar, gas and heat pump hot water systems, AAA-rated showerheads, lighting, whitegoods and insulation.
- Over 300 Sustainable Energy practitioners attended the 2003 Energy Smart Green Globe awards to recognise excellence in the NSW sustainable energy industry, and applaud the achievements of over 53 winners in 8 different categories.
- Through the establishment of the new Association of Building Sustainability Assessors there are now over 320 accredited assessors in NSW formed into an independent, incorporated, not for profit group that reflects the changing State policy in this area.
- Energy Smart businesses invested $7.8 million in energy efficiency projects, providing a great boost to service and product providers.
- There were 2,548 NSW businesses choosing to purchase accredited Green Power, driving investment in the renewable energy sector.

Creating Jobs in Sustainable Energy Industries

- The commercial property sector is becoming more efficient and less greenhouse intensive, with the help of over 100 Australian Building Greenhouse Rating accredited assessors nationally, 42 of these are in NSW ensuring a better

commercial building sector, and broadening the market for sustainable energy products and services.

- Once entirely voluntary, the Australian Building Greenhouse Rating tool became a mandatory measure for NSW Government–owned and tenanted buildings. Around 210 tenancies and buildings are now required to meet a minimum star rating under the scheme.
- Government agencies committed $3.5 million to energy efficiency projects that will require the skills and experience of a pool of service providers.

RESULTS FOR THE ENVIRONMENT

Facilitating the Development and Increased Use of Renewable Energy and Other Energy Supply Technologies Which Result in Low Greenhouse Gas Emissions

- During the reporting period SEDA programs and activities reduced greenhouse gas emissions in excess of $3.6 million lifetime tonnes of carbon dioxide equivalent (CO_{2e}).
- SEDA programs supported four new renewable energy projects in NSW through the provision of seed funding of $456,000, together estimated to result in a reduction of around 1.1 million tonnes of greenhouse gas emissions over their lifetime.
- The number of Green Power customers, voluntarily paying a premium accredited renewable energy swelled to the record level of 105,980 nationally during the reporting period, an increase of 19%.
- The National Green Power Program, initiated in NSW, accredited nine new generators during the reporting period, growing installed capacity by 8MW to reach 430 MW in total throughout Australia.
- Expansion of the Solar in Schools program seeing another 29 schools with a 1.5kW solar system installed, ensuring over 34,000 NSW schoolchildren have direct experience of renewable energy generation.
- SEDA facilitated investment of $3.25 million in new solar projects, resulting in abatement of 3,880 lifetime tonnes of CO_2 abatement, including 220 new rebates administered under the Commonwealth Government Photovoltaic Rebate Program (PVRP).
- SEDA released the second edition of the market research data “Who Buys Solar Power Systems”, with detailed demographic information on solar power consumers, to assist manufacturers with their market strategy.

Promoting Increased Efficiency of Energy Use

- Over 80% of residential development applications were complying with the Energy Smart Homes policy, mandated by 60 Councils in NSW.
- A national advertising campaign, coordinated by SEDA, was conducted to raise awareness of the Energy Star label and to increase its values to manufacturers.
- RetraVision stores across Australia distributed material on Energy Star to electronics consumers at the point of sale.
- SEDA ran 15 seminars related to all program areas in the reporting period. Seminars were hosted at a number of venues, providing low cost and high quality information and contacts to over 1200 sustainable energy industry participants.
- The seminar program initiated a partnership with Sydney Water’s “Every Drop Counts” program to run combined energy and water savings seminars for industry. The first two were held in the reporting period.

RESULTS FOR THE COMMUNITY

- The continuing provision of free energy advice to NSW consumers through the Energy Smart Information Centre through 5080 phone calls, emails and in-person visits to the centre.
- Specialist Energy Smart consultants attended over 50 community, local government and industry events to impart detailed knowledge on energy management.
- SEDA ran a series of Arabic-language advertisements promoting energy savings in two community newspapers in June 2004 and provided an interpreting service for enquiries. The advertising concurred with the Energy Smart Home Rating pilot in Penrith, where Arabic is the most common language group after English.
- SEDA hosted an interactive, educational stand on energy savings and solar power at the Sydney Homeshow in May 2004, which was visited by over 16,000 members of the public.

- The new hot water calculator was made available for free on the internet, allowing consumers to work out the running costs of a number of hot water systems before purchasing one.
- Broken Hill and Tweed Shire residents gained access to public forums, and media attention for energy efficiency, through Energy Smart Weeks organised by SEDA and Council.
- Developers and Councils now have a free resource – the Solar Access for Lots guide – to maximize solar access in Greenfield developments. 48 companies requested this free booklet in the reporting period.
- Two community service announcements, developed by SEDA were run on SBS, Channel 7 and Channel 9 to give practical ways of reducing energy at home and at work.
- Executive members of the NSW Chamber of Commerce attended two business briefing events about energy efficiency.
- The new Solar in Schools website allows easy access for students in NSW and QLD to find out more about solar power, and see real-time information about the operation of their system.
- The Energy Smart Allies program saw over 390 product and service providers of sustainable energy solutions listed in an internet network.
- SEDA provided 5 Wind Data Licences and 9 Regional Wind Reports to a diverse range of wind energy stakeholders, to ensure that wind developments use high quality comprehensive environmental information in planning appropriate wind farm developments.

OBJECTIVES AND RESULTS: 1996 – 2004

RESULTS FOR THE ECONOMY

Since its inception, SEDA has measured success through the performance indicators:

- Value of lifetime energy savings committed through programs (dollars)
- Value of investment of non-Government funds in sustainable energy projects (dollars)

Over the period 1996 – 2004, SEDA programs attracted over $539 million of investment in to the state; and delivered lifetime energy savings for the NSW community worth over $1.3 Billion. The results by year are graphed opposite.

In addition, the Green Power Accreditation Program, administered by SEDA on behalf of the National Steering Group has stimulated around $191 million in investment and 20 million tonnes of lifetime greenhouse gas reduction.

These figures only include the more than 3400 projects and initiatives for which SEDA has provided direct support. These outcomes represent a significant return on the $91 million of tax payer funds invested in sustainable energy via the agency over 9 years (see graph over page).

RESULTS FOR THE ENVIRONMENT

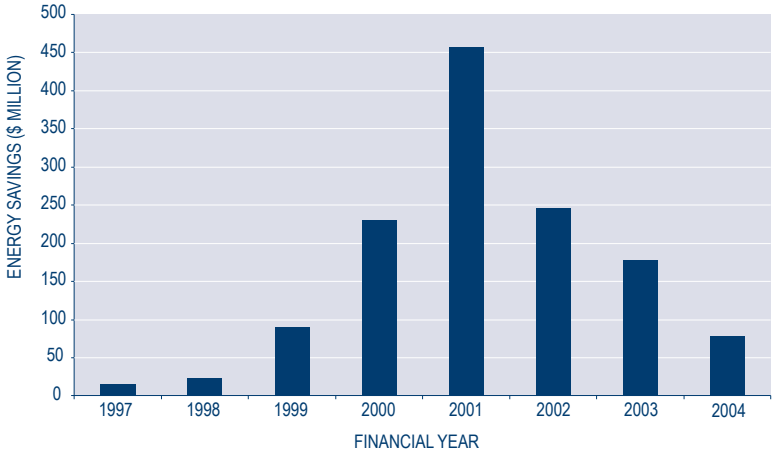
The third key performance indicator is greenhouse gas emission reductions committed over the life of projects facilitated through SEDA programs. Over the operating period, SEDA programs reduced greenhouse gases by over 35 million lifetime tonnes of carbon dioxide.

RESULTS FOR THE COMMUNITY

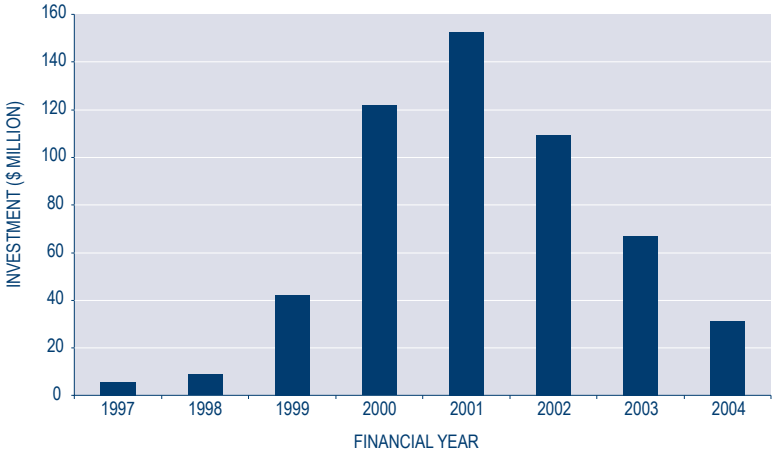
The primary indicator of SEDA's work with the community is the number of prosperous partnerships forged over the entire operating period. Some examples are:

- 390 businesses joined the Energy Smart Allies directory, providing sustainable energy products and services to the Australian community.
- 240 private companies have been Energy Smart Business partners, showing that it is possible to save money, save energy and save the environment in a commercial setting.
- 79 schools had solar panels installed, reaching 34,000 students, and demonstrating solar technology to the broader community, in partnership with the NSW Department of Education and Training.

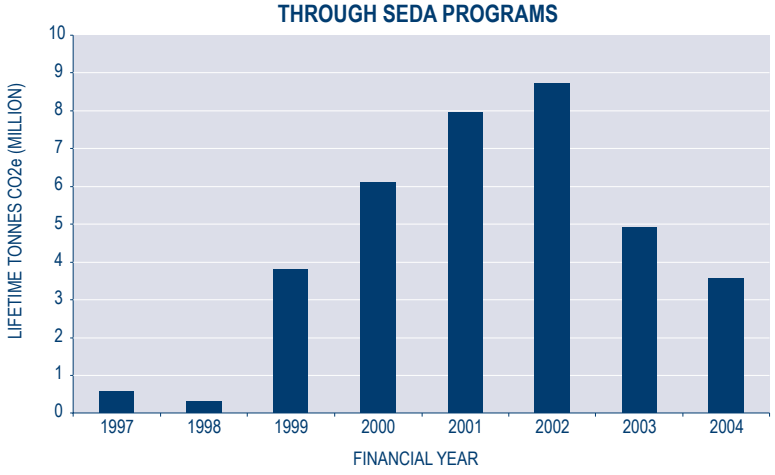
VALUE OF LIFETIME ENERGY SAVINGS COMMITTED THROUGH SEDA PROGRAMS



INVESTMENT OF NON-SEDA FUNDS FACILITATED THROUGH SEDA PROGRAMS



LIFETIME GREENHOUSE GAS EMISSION REDUCTIONS COMMITTED THROUGH SEDA PROGRAMS

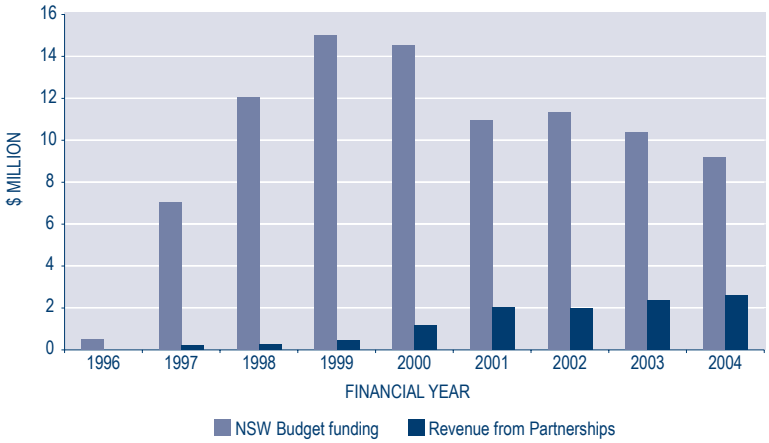


At 30 June 2004, 12 Green Power accredited energy retailers offered 17 Green Power products to 100,959 residential and 5,021 commercial customers.

- 65 private companies and 29 Government agencies have partnered with SEDA, using the Australian Building Greenhouse Rating (ABGR) scheme to improve the greenhouse performance of their office buildings and tenancies.
- 60 Councils representing 80% of NSW's new residential development adopted minimum energy performance standard sfor the building fabric, under the Energy Smart Homes Policy. Of these, 53 Councils mandated installation of greenhouse friendly hot water systems.
- 55 renewable and low emission energy supply projects received Government investment of $26 million, attracting over $160 million in private sector capital to the State.
- 37 organisations commissioned feasibility studies for low-emission energy sources - gas fired cogeneration, waste coal mine gas utilisation or Bioenergy, to help take the step of financial commitment to new technology.
- 12 energy retailers offering 17 accredited Green Power products to 100% of the Australian population.
- 10 manufacturers offering Energy Star labelled home electronics.

The full names of organisations forming these partnerships are listed in Appendices.

NSW BUDGET FUNDING AND REVENUE THROUGH PARTNERSHIPS



MARKET TRANSFORMATION DEMONSTRATED

SEDA employed many methods in its quest to "transform the market" over its operating period. The variety of ways chosen to get to this destination included:

- Demonstrating new technologies operating in real applications
- Realising commercial value for energy efficiency
- Creating consumer demand for a more environmentally responsible product
- Creating trusted accreditation for consumers to rely on
- Creating recognisable brands to identify sustainable products and services
- Assessing costs and benefits for new initiatives, and removing risk for investment
- Providing profile for organisations changing their practice

There are many examples of SEDA programs laying the foundations for new practice, which have then been taken up by other groups for the greater good. The following are some short case studies where SEDA programs were leading the way throughout the operating period.

Green Power: from NSW to National

Launched in 1997 by SEDA, the National Green Power Accreditation Program is a State government voluntary initiative for driving investment in renewable energy. When customers choose a Green Power product, energy suppliers commit to buying a requested amount of electricity from approved renewable, non-coal fired approved sources.

At the time of its launch, the program was offered only in NSW. However, its success attracted involvement from other states and Green Power accreditation became national in 2000. The program has been effectively extended across Australia due to its robust and detailed accreditation process, ensuring nationwide consistency of Green Power accredited products and strengthening consumer confidence in environmentally friendly energy.

As at 2003/04, the program was offered Australia-wide through collaboration between state government bodies in NSW, Victoria, Queensland, South Australia, Western Australia and the ACT – known collectively as the National Green Power Accreditation Steering Group with SEDA as appointed Project Manager.

At 30 June 2004, 12 Green Power accredited energy retailers offered 17 Green Power products across Australia to 100,959 residential and 5,021 commercial

customers (unaudited). National sales since the program's inception reached 2,224 Gigawatt hours, saving over 2 million tonnes of greenhouse gas emissions. The environmental impact is equivalent to planting over 100,000 hectares of forest.

Bringing High Performance Commercial Buildings to the Market

The Australian Building Greenhouse Rating (ABGR) scheme was developed by SEDA in 1999 to improve greenhouse performance in the commercial office sector. With emissions in this sector set to double between 1990 and 2010, a tool to benchmark office building greenhouse performance was created to drive change using market forces in the office sector.

A survey conducted by SEDA in 2003 revealed that the change is substantial:

- 47% of asset managers have upgraded buildings as a result of an ABGR rating.
- 9 out of 10 asset managers, facility managers, developers and investors, 8 out of 10 builders and designers and 7 out of 10 tenants have incorporated ABGR into their business practice.
- More than 20% (by area) of NSW office buildings have obtained at least one official ABGR rating and, since national implementation in 2000, approximately 12% of office buildings around Australia have at least one official ABGR rating.

ABGR has been acknowledged by the property industry as "the almost universally accepted benchmarking tool for energy consumption of commercial buildings in Australia".

Premier Carr announced in March 2004 that all NSW Government office buildings will be benchmarked using ABGR and will have to achieve high ratings by 2006. Other state and territory governments are in the process of making similar policy statements.

Australia's first five star CBD grade office building was constructed in Sydney by Bovis Lend Lease, using building technology for the first time in Australia. Use of ABGR to measure and demonstrate improved greenhouse performance has helped the commercial property sector recognise the opportunity to make a difference and make a saving to their bottom line at the same time.

Cogeneration in Hospitals

Launched in mid 2000, SEDA's Cogeneration Development Program provided feasibility studies to 28 businesses across NSW over 4 years. Cogeneration is the simultaneous production of heating (or cooling) and power, reducing greenhouse gas emissions by up to two thirds compared to conventional methods of heat and power generation.

One of the first studies completed under this Program was for Griffith Base Hospital in the Riverina area of NSW. The study showed that an investment in a small gas fired cogeneration unit providing power and hot water to the building could be financially attractive. Greater Murray Area Health Service subsequently installed the cogeneration system at the hospital using an Energy Performance Contract (EPC).

Gas cogeneration units are now being installed at several other hospitals in NSW. Western Sydney Area Health Service currently has an EPC being implemented which will see cogeneration units installed at Mt. Druitt Hospital, Blacktown Hospital and the Parramatta Linen Service.

The Business of Sustainability

WindBusiness was launched in November 2002 as a cost recovering business unit providing data and information to assist wind developers with site selection for new wind farms in NSW. The products designed were wind monitoring data licenses, Regional Wind Reports; a State-wide Wind Synopsis, wind monitoring services and correlation services to developers. Most of these products cost less to the developer than collecting the information themselves, and save considerable time.

WindBusiness has successfully created products that are useful to wind farm developers and continues to see strong demand for them. WindBusiness is simultaneously meeting a demand in the marketplace and creating revenue that supports the general promotion of renewable energy through other government programs. In addition, WindBusiness' activities and the promotion of a free NSW Wind Atlas released by SEDA in 2001, have helped raise the profile of NSW as an excellent location for development of wind farms. Over 1,000MW of wind farms are now being proposed in NSW, many by clients of WindBusiness.

Energy Smart Homes Policy Leads the Way for Compulsory Building Standards

Energy Smart Homes is a voluntary program that helps NSW Councils to adopt and implement a model energy efficiency housing policy for new dwellings.

It was launched by SEDA in 1997 when a typical project home had an energy rating through the Nationwide House Energy Rating Scheme (NatHERS) of 2 stars. The policy requirements included a minimum 3.5 star rating and the installation of greenhouse-friendly water heaters. The Program included valuable council, industry and resident training on energy efficiency principles.

By 2003/04, 80% of new residential development in 60 New South Wales Councils was covered by the policy requirements, exceeding the initial goal of 75%. Solar, gas and heatpump water heaters were mandated by 53 of these Councils.

The Building Code of Australia (BCA) drew from the policy requirements in SEDA's Energy Smart Homes Program and adopted a 4 star NatHERS rating in 2003.

In NSW, the Department of Infrastructure, Planning and Natural Resources has built from the Energy Smart Homes foundation of tools and both industry and council knowledge. It has embedded NatHERS certification within its Building Sustainability Index (BASIX) and is mandating energy and water requirements in metro Sydney. DEUS is now working with DIPNR to help regional Councils make the transition from Energy Smart Homes Policy to BASIX through to June 2005.

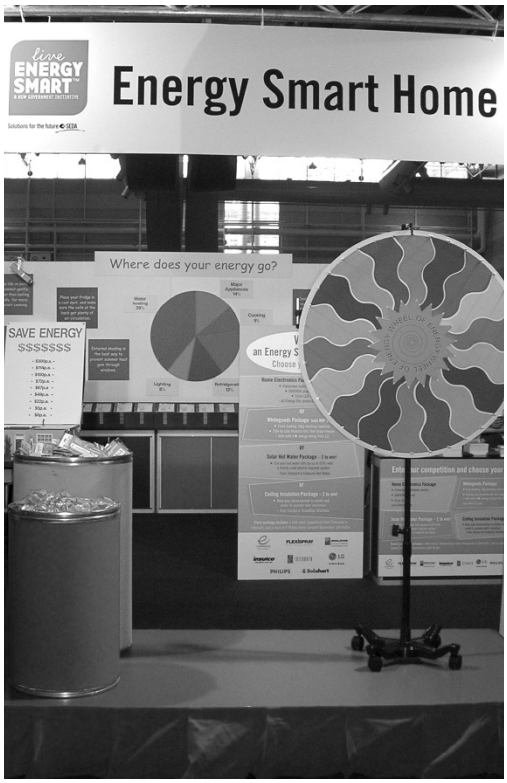
Developing the Industry Expertise for Better Designed Homes

Launching the Energy Smart Homes Program for voluntary adoption by NSW councils required a consistent and credible means to ensure compliance to policy guidelines.

While the Nationwide House Energy Rating Scheme (NatHERS) is the technical tool to assess design compliance, the industry capacity to deliver these ratings was required. To support the policy adoption, SEDA established and chaired the House Energy Rating Management Body (HMB). Under contract to SEDA, the HMB was operated by Solarch, UNSW and was responsible for the accreditation of House Energy Rating Assessors.

Key residential building associations participated on the HMB with SEDA. As the housing policy landscape evolved with the introduction of the Building Code of Australia and BASIX, SEDA has facilitated the transition of HMB to an independent, incorporated not-for-profit association to enable full independence and ownership by industry.

In October 2003 the Association of Building Sustainability Assessors (ABSA) was constituted under the *Associations Incorporation Act, 1984.* ABSA replaces the former HMB, and now manages the accreditation and training of over 320 Accredited Assessors in NSW and is managed by a Board of Directors. This independent organisation is well positioned to service the growing demand for skilled and accredited energy rating professionals not only in NSW, but nationally.



The Energy Smart Home Display, Sydney Homeshow, May 2004. Consumer education has been a vital part of success of the Energy Smart Homes Policy.

OPERATIONS

RENEWABLE ENERGY AND LOW EMISSIONS ENERGY SUPPLY

The Renewable Energy Team runs programs to gradually shift the composition of NSW's electricity supply from energy generated in the burning of fossil fuels to renewable and low carbon forms of energy generation. The team focuses in particular on wind and solar energy, waste to energy, bioenergy, and the capture of waste coal mine gas.

During 2003/2004, the Renewable Energy Team ran several programs focused on delivering low or no emission energy supply and supporting renewable energy development. Key approaches were fostering partnerships with appropriate industry and community groups, providing financial and in-kind assistance to sustainable energy projects, providing community and industry education, and obtaining commercial returns from our program initiatives (where appropriate) to increase available funding for future support of sustainable energy development in NSW. The team also continued its management of the national Green Power program, which enables consumers to choose to buy renewable energy for their power supply, increasing the demand for renewable energy in Australia.

During this reporting period four new low carbon power generation projects were committed as a result of SEDA's programs, resulting in reductions of over 1.1 million tonnes of greenhouse gas emissions over their lifetime.

BIOENERGY PROGRAM

Goal

SEDA's Bioenergy Program Goals are to:

- maximise greenhouse reduction and energy recovery from urban and regional biomass resources in NSW;
- develop a sustainable commercial bioenergy industry in NSW;
- raise awareness of and gain support for bioenergy among key stakeholders, including industry and community groups, local and State Government;
- facilitate planning for longer term abatement strategies, such as energy cropping and the integration of bioenergy into agricultural, forestry and land management systems; and
- provide support for the commercialisation of selected bioenergy projects by offering development advice, assistance with business plans and feasibility studies, and the possibility of funding through the Renewables Investment Program.

Results

In the financial year 2003/2004 the Bioenergy Program:

- Provided financial assistance to two key demonstration projects:

1. A pilot plant for the anaerobic digestion of wastes from agricultural processing industries in regional NSW. The project will demonstrate the feasibility of a larger permanent facility, which will produce electricity, recycled organic material and recycled water.
2. The establishment of pilot plantations of native tree species for short-rotation forestry. The plantations will provide biomass for energy production and value-added materials, and will provide a financial incentive for the establishment of new tree plantings.

Both of these projects have great potential for market transformation and significant greenhouse gas reduction;

- Established an inter-departmental working group on "Bioenergy and Sustainable Agricultural, Forestry and Land Management Systems". The members are the Department of Energy, Utilities and Sustainability, Department of Infrastructure, Planning and Natural Resources, Department of Primary Industries, and Department of Environment and Conservation. The group aims to share information and resources, and to co-ordinate programs and activities in this area;
- Initiated production of NSW Bioenergy Handbook (due for release in late 2004). This has involved an extensive consultation process, resulting in an information resource which will be very useful to a wide range of stakeholders, and will assist the development of the bioenergy industry in NSW;
- Held the first national Biodiesel conference in Sydney on 25 July 2003. This was very well-attended, and covered a range of current and important topics for a newly developing industry with great potential to benefit New South Wales;
- Provided support for other projects, including biodiesel processing plants, crop waste to energy proposals and pelletising industries (for fuel for domestic heaters);

During this reporting period four new low carbon power generation projects were committed, resulting in reductions of over 1.1 million tonnes of greenhouse gas emissions over their lifetime.

- Produced resource assessments and market on the potential for briquetting and pelletising biomass wastes in NSW (to be used as fuel for heating and/or power generation); and
- Provided ongoing management of existing bioenergy projects funded in previous years.

RENEWABLES INVESTMENT PROGRAM

Goal

The goal of the Renewables Investment Program (RIP) is to:

- encourage the growth of the renewable energy capacity in NSW by providing funding assistance to selected project developers, thus enabling them to undertake worthwhile renewable energy projects that otherwise would not go ahead. In doing this SEDA fulfils a vital role in the development of the renewable energy industry in NSW;
- provide assistance to developers by way of advice and information to assist the development of renewable energy projects; and
- provide funding for projects with a total estimated savings of 3,000,000 lifetime tonnes of CO_{2e}.

Results

RIP Rounds 10 and 11 were held in the 2003 – 2004 financial year, and following due process three projects (see Note below) were funded:

HYDRO PROGRAM

No hydroelectric activities were carried out during the reporting period due to the maturity of this technology, the limited further opportunities available for hydro in NSW, and the limited scope for assisting water authorities to pursue these opportunities.

SOLAR POWER PROGRAMS

Goal

SEDA's Solar Power Programs aim to develop an economically sustainable market for grid-connected solar power in NSW, by:

- creating a diverse community of solar advocates who already have a trusted relationship with consumers;
- creating a solar industry that is a reliable and widespread service provider to other existing industries and groups such as the building industry, property development, energy retailers, architects, government, schools and electricians;
- institutionalising solar-friendly culture and policy in urban planning, the electricity industry, government, councils and the housing industry; and
- assisting the NSW community to own and operate solar technology.

Results

This Program report comprises SEDA's solar programs, and the Photovoltaic Rebate Program (PVRP) and

Project	Description	Seda Funding	Greenhouse Gas Benefits
Regional Anaerobic Digester	Pilot Facility to evaluate the design of a commercial waste digester in regional NSW	$100,000 grant	The commercial operation following the pilot project will save 42,000 T CO_{2e} per year for 20 years (840,000 Lifetime Tonnes of CO_{2e})
Varispeed Wind Turbine Generator	The manufacture and testing of an improved design for commercial wind turbine generators	$150,000 grant	If successful the Varispeed wind generator will improve the operational efficiency of wind turbines and significantly reduce CO_{2e} emissions in NSW and worldwide
Bioenergy Plantation Trial	A demonstration project to verify the economic viability of producing energy from tree plantations	$150,000 grant	The trial project will save 208,000 Lifetime Tonnes of CO_{2e}. The commercial operation following the demonstration project will save 240,000 T CO_{2e} per year.
TOTAL FUNDING:		**$400,000**	

It should be noted that the amount of funding allocated to new projects was substantially less than for previous years, as the program was under review.

The total reduction in greenhouse gas emissions, based on the two bioenergy projects progressing from the trial stage to commercial operation, is estimated to be more than 3,000,000 tonnes of CO_{2e}. In addition SEDA provided assistance to developers by way of advice and information to assist in the development of renewable energy projects.

the Remote Renewable Power Generation Program (RRPGP), which SEDA administers in NSW on behalf of the Australian Greenhouse Office.

To date NSW is the leading State in accessing PVRP funding for solar installations. During the 2003/2004 reporting period, SEDA administered PVRP rebates to 220 rebate applicants, resulting in the installation of 273 kW (peak) of rooftop solar power, thereby achieving over 7,000 tonnes of greenhouse gas abatement.

Grid-connected, building integrated solar power is the fastest-growing sector of solar market worldwide. It offers good long term potential to provide sustainable energy, especially as a distributed generator. It is currently a small fraction of the NSW solar market, and so SEDA again focused its programs and initiatives to address the high-cost and low awareness barriers to capture this potential growth.

SEDA, in conjunction with the NSW Department of Education and Training, again conducted a successful round of its award winning Solar in Schools program, drawing sponsorship from Integral Energy and support via the Federal Photovoltaic Community Rebate Program. Over the reporting period, 1.5 kW solar power systems were installed at 29 additional NSW schools and commenced at a further 7 schools, which together will bring the total number of NSW solar schools to 79. All schools receive teaching resources on solar power and renewable energy, and are able to upload their data to a Solar in Schools website that is operated jointly for NSW and the QLD solar schools program. All participating schools were congratulated for installing and advocating solar energy in their local communities. This initiative is highly successful in raising community awareness and acceptance of solar power technology and Green Power across the State. Over 34,000 schoolchildren now learn about solar power with a solar power system in their own school.

In addition to the investment and abatement delivered through administering federal rebate programs, SEDA's targets for the reporting period were for $1.815 million in new investment in solar power systems, delivering abatement of 1,400 lifetime tonnes of CO_2. SEDA exceeded its targets, and directly facilitated investment in new solar projects of $3.25 million resulting in abatement of 3,880 lifetime tonnes of CO_2.

In achieving these results, SEDA supported a number of large solar energy projects in the reporting period. Most notably, grant funding was provided to the University of NSW for the installation of a 40 kW roof-mounted solar power system, and state-of-the-art interactive multimedia education display. The education display will be viewed by the thousands of University students passing by each year, and will also serve as an excellent education resource for the photovoltaic engineering degree.

SEDA also conducted a range of industry development activities over the reporting period, including directing RRPGP funding towards a study of Operational Health and Safety issues for photovoltaic installations, the release of "Who Buys Solar Power Systems?" (Second Edition) and a workshop to discuss options and barriers for grid-connection of solar energy.

Students at Hawkesbury Independent School with the Solar Explorer Kit, provided along with a new 1.5kW Solar System as part of the Solar in Schools Program.

SEDA directly facilitated investment in new solar projects of $3.25 million resulting in abatement of 3,880 lifetime tonnes of CO_2.

WIND ENERGY PROGRAM AND WINDBUSINESS UNIT

Goal

SEDA's Wind Program and Windbusiness Unit aim to facilitate the appropriate development of commercial wind energy projects in NSW by providing high quality data, raising awareness of wind amongst key stakeholders, and ensuring the incorporation of stakeholder concerns in the planning processes.

Results

Wind remains the fastest growing energy technology in the world and NSW is taking steps to capture its advantages for job creation, investment and the environment. While wind energy developments have been focused in Victoria and South Australia, in NSW SEDA has been promoting acceptance of wind energy amongst energy generators, retailers, investors, land holders, local government, planning bodies and the general community.

During the reporting period, SEDA contributed at Planning Focus Meetings for wind farms with a

proposed installed capacity totaling 632MW. SEDA assisted at these forums with the latest information on wind. Indications are that there are many additional projects being investigated in NSW.

During the reporting period SEDA continued to manage and collate data from Australia's most extensive wind monitoring network, with 32 towers and 38 monitoring sites across the State. A review of the monitoring network was undertaken and, during the year, 6 of the 32 towers were sold and 3 were relocated. The NSW Wind Atlas (a snapshot of wind speed around the State), Landowners Information pack and NSW Wind Handbook have continued to be valuable resources for developers, government, the electricity industry, landowners and the broader community.

Activities during the reporting period included:

- holding the annual wind seminar aimed primarily at the wind industry, but also decision makers, government, and other interested parties;
- supporting a project to develop a financial structure for a community owned wind project. The results of the project will be reported in the next financial year;
- installation of three 20kW turbines at the CSIRO Energy Centre in Newcastle funded through the Renewables Investment Program; and
- running a roadshow of visits to local councils, in windy areas, giving presentations to Council meetings, Council General Managers and Planning Officers. The roadshow aimed to educate local councils on wind and prepare them for interaction with developers seeking planning approval.

SEDA continued to assist State Forests to open up their land for wind development. SEDA ran an Expression of Interest on behalf of State Forests to identify developers interested in obtaining Occupation Permits for the development of wind on the State Forests primarily in the Macquarie region. The activity identified a great deal of interest in wind development in the area. Three monitoring towers were moved to locations on State Forests in the Macquarie region in order to provide data to wind developers on the sites of interest.

The WindBusiness unit produces accurate, detailed, long-term data to assist the industry in NSW choose favourable sites, and harness the maximum energy available at any site. WindBusiness products and services are designed to save time, money and reduce risks for investors and wind energy developers. The WindBusiness Unit operated successfully during the period, exceeding the targets for sale of services and covering production costs. The products were well received in the wind industry and served the purpose of filling an information gap.

WASTE COAL MINE GAS PROGRAM

Goal

The Waste Coal Mine Gas Program goal is to encourage the use of waste coal mine gas (methane emitted by coal mining) for greenhouse reduction and energy generation in all viable NSW mines with an aim to achieve 2.7 million tonnes of lifetime CO_2 equivalent abatement.

Results

Waste coal mine gas currently accounts for more than 8% of the State's greenhouse gas emissions. The capture and use of methane as a fuel assists coal mining companies to eliminate significant greenhouse pollution and use a waste product.

SEDA has managed a 4-year $2.5 million fund to encourage coal mines to help protect the environment by installing the latest technology to reduce methane gas emitted from mining operations. Through this fund SEDA finalised feasibility study reports for Metropolitan Mine (near Helensburgh) and the Bulga and United mines (near Singleton) to ascertain whether the use of waste coal mine gas for energy generation could be technically and commercially viable, and what would be the most viable method of use. SEDA has since assisted these mines to investigate project opportunities relating to the feasibility study findings.

Through this fund SEDA has also provided financial assistance towards the commercialisation of the Carburetted Gas Turbine by Energy Developments Ltd and the Rotary Kiln technology by the CSIRO and Liquatech. Both these technologies significantly improve opportunities to capture and use waste coal mine gas.

The following activities were conducted during the reporting period:

- as a result of the SEDA initiated feasibility study report, Metropolitan Mine (in conjunction with Sun Resources and Apex Energy) committed to a project with the potential to abate approximately 1.5 million lifetime tonnes of CO_2 equivalent;
- commencement of a resource assessment of methane resources available and fugitive emissions released from decommissioned coal mines in NSW;
- the negotiation and commencement of a feasibility study report assessing the opportunity to capture and use methane as

a fuel at Mandalong Mine (near Morisset), owned by Centennial Coal; and

- continued assistance for the development of a 10MW Rotary Kiln demonstration plant by ComEnergy (a joint venture between Liquatech and CSIRO), with the potential for lifetime greenhouse gas reductions from this demonstration plant estimated to be around 2 million lifetime tonnes of CO_2 equivalent.

In addition, SEDA continued to consult with state based and international industry stakeholders, promote awareness of new technologies, and fund opportunities for new waste coal mine gas projects.

NATIONAL GREEN POWER ACCREDITATION PROGRAM

Goal

The National Green Power Accreditation Program aims to:

- increase the number of Green Power customers, thereby driving investment in renewable energy through voluntary renewable energy purchase; and
- ensure the Green Power market can meet this growing demand by supervising the accreditation of sufficient new Green Power generators to supply 400 MW of new installed capacity.

Results

SEDA established the Green Power Accreditation Program in 1997 to accredit and promote renewable energy in NSW. Today Green Power is a national program, project managed by SEDA and governed by the National Green Power Accreditation Steering Group. The total energy sales for the lifetime of the Program have surpassed 2,000 gigawatt hours (GWh), with annual Green Power sales now greater than 420 GWh. There are currently 17 Green Power products offered by 12 national energy retailers, with restructuring of four existing Green Power products approved during the reporting period.

During the reporting period total customer numbers increased by 19%, reaching the Program's highest level of 105,980 Green Power energy customers. This includes over 5,000 commercial customers, 30% greater than our target for 2004. The significant increase in Green Power uptake by the commercial market is promising and currently accounts for 60% of total Green Power sales.

Findings from the June 2004 Green Power Quarterly Report showed that NSW Green Power commercial customers represented 51% of the nation's business purchasers, with highest residential uptake of Green Power in Queensland and Victoria.

Installed 'new' capacity for Green Power is now greater than 430 MW, exceeding our 2004 target by 8%. During the reporting period the Program approved nine Green Power generators, providing an estimated additional 'new' capacity of 8 MW. At current levels of growth we estimate that the market will require 450 MW of accredited Green Power by 2005.

Rapid market development has occurred in the renewable energy sector in Australia over the past year, and SEDA has undertaken ongoing and considered stakeholder consultation and discussion to maintain the highest level of international standards for the National Green Power Program. A key strength of the Program is that all Green Power sales remain additional to other drivers of the renewable energy industry such as the Federal Government's Mandatory Renewable Energy Target (MRET) and the NSW Greenhouse Gas Abatement Scheme. Green Power sales for the reporting period indicated that voluntary demand for Green Power drove renewable energy sales 23% above the 2003 MRET target of 1800 GWh.

Since the Program's inception in 1997, over 155 'new' Green Power projects have been approved, proposed or commissioned. New generator approvals in NSW during the recent reporting period included six 120 kW micro-hydro units at Tumut 3 Power Station, with 'pre-approval' granted to the 2 MW Eastern Creek UR3R Landfill Gas facility.

Managing a national program and ensuring that 100% of the grid connected population is able to nominate the source of their electricity, requires stringent and rigorous

Since the Program's inception in 1997, over 155 'new' Green Power projects have been approved, proposed or commissioned.

Sydney's 'City of Light' festival at New Year 2004 featured buildings floodlight and powered by Green Power.

program and relationship management. SEDA's Green Power team released four quarterly reports detailing growth and developments in the program, auditing 12 energy retailers around the country.

The Green Power 2002/03 Annual Audit was released during the reporting period with all NSW retailers showing full compliance with the requirements of the program. A key requirement of the Program is for retailers to source a minimum 80% of all Green Power sales from 'new' (post January 1997) Green Power approved generators, to ensure ongoing demand for new installed capacity.

With the accreditation rules and guidelines now at a relatively mature stage, increasing focus is being placed on marketing activities. The reporting period saw increased adoption of the new Green Power Events concept by which all energy retailers can provide Green Power to meet 100% of an event's energy usage, thereby increasing awareness and recognition of the Green Power brand. Other specific marketing activities undertaken during the reporting period included conducting qualitative and quantitative market research, developing a comprehensive communications/PR toolkit for Green Power generators, developing a web-based electronic newsletter distributed to over 400 stakeholders on a quarterly basis, and updating and redistributing the Green Power purchasing guide for Local Governments. SEDA also hosted the 2nd National Green Power Retailer Forum in May 2004, with a keen interest shown by retailers, industry groups and environmental organisations to actively participate in the development of a national marketing and education campaign.

ENERGY EFFICIENCY AND DEMAND MANAGEMENT PROGRAMS

The electricity and gas used by NSW's commercial, industrial and residential customers accounts for over 70 million tonnes of greenhouse gas being released into the atmosphere each year.

Energy efficiency and demand management programs have delivered cost savings, productivity gains, environmental benefits, brand differentiation and risk mitigation for participating businesses, government agencies and consumers. The programs work through partnerships with energy service providers, government agencies, councils, product manufacturers, retailers, industry associations and others.

The Energy Efficiency team are technical and marketing experts who facilitate energy management outcomes for participating organisations, and promote energy efficiency to NSW businesses and communities.

2003/04 was a year of transition for Programs as integration into the Department of Energy, Utilities and Sustainability proceeded. In the residential market, we retired our long-running Energy Smart Homes Program as it exceeded its multi-year target and was voluntarily adopted by councils approving 80% of the state's residential development applications. The introduction of BASIX (the NSW Government Building Sustainability Index) in 2004/05 will build upon the gains that have been made through the Program. We also launched a new program, the Energy Smart Home Rating, that offers an exciting new focus on the greenhouse performance of the existing 2.3 million homes in NSW.

Our business programs continued to bring sustainable energy solutions to the state's medium and large commercial, industrial and institutional customers. Beyond solely identifying and delivering greenhouse gas abatement, the Energy Smart Business Program delivered internal communications support and organisational workshops to overcome the internal barriers to sustained energy outcomes. The Australian Building Greenhouse Rating Scheme continued its leadership in rating the greenhouse performance of commercial office buildings by having 20% of NSW's floorspace rated and now over 100 assessors accredited to deliver ratings nationally.

The Demand Management Business Unit made impressive gains in 2003/04. It leverages from the technical and marketing expertise across SEDA and delivers customised demand-side solutions in constrained network areas.

DEMAND MANAGEMENT BUSINESS UNIT

(renamed from the Distributed Energy Solutions Business Unit)

Goal

The Demand Management Business Unit works with NSW electricity retailers and network operators to deliver greenhouse gas emission reductions on a self-funding basis. The Business Unit assists network operators to reduce peak electricity demand in constrained areas and helps electricity retailers meet their obligations under the NSW Greenhouse Gas Abatement Scheme.

The Business Unit was established in July 2002 with a Business Plan for the 2002-2004 period. The stated short-term (two-year) objective of the Unit was to complete two to three projects in each area of energy efficiency and network.

Results

With regards to the goals established in the Business Plan, the Business Unit has achieved its numerical targets in terms of the number of projects underway in each sector, however timeframes have not allowed the

projects to be "completed" within the original two-year horizon envisaged.

Energy Efficiency

On the energy efficiency side SEDA has assisted NSW electricity retailers with the NSW Greenhouse Gas Abatement Scheme through two projects. One project is complete and the other has been delayed 6-12 months.

The first completed project involved the creation and sale of 16,776 NSW Greenhouse Gas Abatement Certificates (NGACs) on behalf of partners in the Energy Smart Business Program. The second project involved a further batch of 60 projects which will result in approximately 17,000 NGACs being created per annum.

Networks

The Business Unit is currently working on three projects with NSW electricity Network Service Providers (NSPs) – Castle Hill (Integral Energy), Binda-Bigga (Country Energy) and Brookvale (Energy Australia). None of these projects are complete as the timeframes for deliverables stretch over many years – something unforeseen in the original Business Plan.

- In Castle Hill, 1,350kVA of summer peak demand reductions are due by 30 November 2005. As at 30 June 2004, 598kVA of reductions had been implemented and the project was on track to meet the contractual milestones on-time and on-budget.
- In Binda-Bigga, 200kVA of winter peak demand reductions are due by 1 December 2005. As at 30 June 2004, no reductions had been implemented, however the project is forecast to have all reductions in place well before the contractual deadline, and below budget.
- The Brookvale Demand Management Project is in the very early investigation phase and a submission is due to EnergyAustralia in time for the closing of the Standard Offer on 30 November 2004.

ENERGY SMART GOVERNMENT

Goal

The Energy Smart Government Program provides support, advice and tools for NSW Government agencies to meet the Premier's 25% energy reduction targets as set out in the Government Energy Management Policy (GEMP).

Result

During the reporting period $3.5 million was committed for investment into Government energy efficiency projects through two strategic tools for addressing market barriers to energy efficiency; Energy Performance Contracting (EPCs) and the Government Energy Efficiency Investment Program (GEEIP). These projects will deliver guaranteed savings of over 4,145 tonnes of greenhouse gas emission and $550,000 in annual savings. The Energy Smart Government program works with NSW Government agencies to reduce energy related greenhouse gas emissions. This requires a high level of interdepartmental liaison and co-operation. Significant gains were made in the NSW health care sector in particular.

In the period under review SEDA continued publication of the GEMP Gazette e-newsletter, keeping government energy managers abreast of the latest developments in the sustainable energy and Energy Performance Contracting industry along with the latest on energy efficiency projects within government.

SEDA commenced a pilot project with Mid North Coast and Central Sydney Area Health Services. The project involved helping the agencies to identify improvements to energy management processes and developing an energy management road map outlining how the GEMP target could be achieved.

SEDA vacated its Australian Building Greenhouse Rating scheme five star rated premises during the year. Work will shortly commence on bringing the new DEUS tenancy up to an ABGR of five stars. In addition, as part of the process of procuring a new tenancy, SEDA required the building owner, Colonial First State Property, to ABGR rate the base building.

AUSTRALIAN BUILDING GREENHOUSE RATING SCHEME

Goal

The Australian Building Greenhouse Rating Scheme (ABGR) is a world-first voluntary greenhouse performance rating scheme for commercial office buildings. Its goals for 2003/04 were to deliver 50 ratings and 5 commitment agreements in NSW.

Results

- In NSW accredited assessors completed 49 accredited ratings of existing buildings, compared with 41 in 2002/03. A further 18 ratings were undertaken nationally, mostly in Queensland and the ACT.

The Australian Building Greenhouse Rating Scheme (ABGR) is a world-first voluntary greenhouse performance rating scheme for commercial office buildings.

The projects undertaken by Partners are delivering savings of $290 million at an impressive 39% average internal rate of return.

- 6 new developments entered into Commitment Agreements with SEDA to achieve a high ABGR rating once in operation: Ernst & Young committed to 4.5 stars for three new tenancies in Sydney, Melbourne and Perth encompassing 66,700m² of office space; and Leighton Contracting committed to achieving 4 stars for the 85,000m² Westpac head office development in Sydney CBD.
- The Premier announced a new policy to measure and improve the greenhouse performance of Government office buildings and tenancies.
- The national pool of ABGR accredited assessors expanded to over 100 through the second national training program for industry based assessors run during the 2003-4 financial year. SEDA created the training documentation and process, and delivered training sessions in Sydney, Melbourne and Perth with the strong support of the Sustainable Energy Development Office in Western Australia and the Sustainable Energy Authority in Victoria.
- A data collection and benchmarking exercise is underway in the Northern Territory and tropical regions of WA and Queensland to ensure that the scheme's benchmarks reflected the real performance of office buildings in those states.
- The North Sydney CBD initiative continued to deliver results for the tenants and building owners who entered into agreements with SEDA:
  - North Sydney Council reducing their emissions by 34% compared with 1996 levels;
  - Colliers International occupying a new tenancy with 60% lower emissions than their previous space;
  - Cowley Hearne occupying their new tenancy with a commitment agreement to achieve 4.5 stars;
  - Macquarie Property using ABGR to manage the greenhouse impact of their portfolio, saving 14-15% on energy and reinvesting those savings in Green Power (5.3GWh per annum);
  - Mirvac saving 9,000 tonnes of CO_2 per annum; and
  - NSW Department of Health saving 290 tonnes of CO_2 per annum.
- The Parramatta CBD Initiative involved 10 buildings including the four largest. Under this initiative savings opportunities were identified in each building, with a measurement of their impact on the ABGR ratings for the building due in late 2004.
- ABGR has been adopted as the energy efficiency and greenhouse performance benchmark in new sustainability rating tools being developed such as the Green Building Council's green star tool and the Federal Government's National Australian Building Environment Rating System.
- SEDA completed a Market Transformation assessment of the ABGR program to assess the extent of the market's use of the scheme. The assessment showed a significant uptake of ABGR in most sectors of the property industry and serves as a baseline for evaluating further program impact.
- SEDA oversaw a number of technical reports to encourage building owners and tenants to improve their greenhouse performance, including a Model Fitout brief for tenants and a review of energy efficiency options for data centres.
- A national communications plan for the program was established. Case studies on participating buildings were completed and made available to program partners and mainstream property and trade media, achieving significant profile for the ABGR program. ABGR seminars were hosted in Sydney and Melbourne.

ENERGY SMART BUSINESS PROGRAM

Goal

Through the Energy Smart Business Program, SEDA partners with NSW business to improve energy efficiency, thereby reducing greenhouse gas emissions. The goal for 2003/04 was 750,000 committed lifetime tonnes of greenhouse gas abatement.

Results

During the reporting period Energy Smart Business partners achieved a reduction of 771,300 commissioned lifetime tonnes of greenhouse gas emissions, exceeding our annual target. Partners commissioned $7.8 million in energy efficiency projects during the reporting period. Eleven new NSW businesses, all now fee-paying, joined the program to invest in greenhouse and energy saving projects, including Sony Australia and Sony Music, Austral Bricks, Cement Australia and Investa.

The projects undertaken by Partners are delivering savings of $290 million at an impressive 39% average internal rate of return. During the year, the team assisted over 20 partners to apply for and create NSW Greenhouse Gas Abatement Certificates under the NSW Greenhouse Gas Abatement Scheme (see Demand Management Business Unit). Energy Management Diagnostic workshops were introduced as an additional service to Partners to embed sustainable energy management criteria within their organisation.

An Evaluation of the Energy Smart Business Program was conducted by an independent consultant to assess the successes, impact, strengths and weaknesses of the program, and opportunities for future design consideration were presented.

The Energy Smart Business program ran six seminars, conferences and business site visits to improve industry knowledge covering topics such as water and energy efficiency, funding cogeneration projects, business risks of climate change and hotel energy management. Two were held jointly with other NSW Government agencies to integrate water savings and waste minimisation information, expertise and program information to provide an overall sustainable business framework.

The annual Energy Smart Green Globes awards night in November 2003 attracted over 320 attendees to recognise Energy Smart Business partners for their commitment to implementing energy efficiency projects, and meeting the program's milestones.

The program collaborated with the NSW Chamber of Commerce on two senior business briefing events. The communications team also developed two Community Service Announcements promoting residential and business energy efficiency, which were shown on SBS, Channel 7 and Channel 9.

The website **www.energysmart.com.au/wes** was updated to reflect SEDA's greater focus on Demand Management and to showcase our key Demand Management projects.

COGENERATION DEVELOPMENT PROGRAM

Goal

The Cogeneration Development Program aims to increase the efficient use of gas fired cogeneration in NSW through the co-funding of feasibility studies.

Results

Five studies were commissioned in 2003/04 with 4 indicating that cogeneration projects would be financially viable based on the sites' nominated IRR. This brings the total studies undertaken to 28 with 14 studies indicating a positive IRR. Two cogeneration projects have been implemented as a result of the studies and are delivering annual abatement of 2600 T $C0_2$ pa and 3 are underway (36,000 T $C0_2$ pa).

In principle support has been given to working collaboratively with other states under a Memorandum of Understanding.

ENERGY SMART HOMES PROGRAM

Goal

The Energy Smart Homes Program is a voluntary program that assists NSW Councils to adopt and implement a model energy efficiency housing policy for new dwellings. It was developed in 1997 with the goal to have the Energy Smart Homes Policy applied to 75% of the residential development applications in NSW.

Results

At the end of the reporting period 60 councils covering 80% of NSW residential development applications had adopted the Energy Smart Homes Policy which equates to 95,400 new dwellings built in NSW under 'Energy Smart' provisions, and those built between 1998 and 2003 are achieving collective savings of 244,717 tonnes of $C0_2$.

At the end of the reporting period 60 councils covering 80% of NSW residential development applications had adopted the Energy Smart Homes Policy.

The Energy Smart Homes Program has laid a strong foundation for the Department of Infrastructure, Planning and Natural Resources' BASIX tool, mandating energy and water requirements for new homes in metro-Sydney on 1 July 2004. DEUS will continue to work with DIPNR to facilitate the transition of ESHP to BASIX in regional areas through June 2005. Policy sheets are available at **www.energysmart.com.au/les** for councils wishing to implement the ESHP.

The House Energy Rating Management Body (HMB), established in 1998 and overseen by SEDA under contract with Solarch, UNSW, has been responsible for the accreditation of House Energy Rating Assessors, who are required by NSW Councils under the Energy Smart Homes Policy to provide thermal performance ratings for new homes. SEDA facilitated a transition to an independent, incorporated not-for-profit association. In October 2003 the Association of Building Sustainability Assessors was constituted and now manages the accreditation and training of over 320 Accredited Assessors in NSW.

ENERGY SMART COUNCILS

Goal

The Energy Smart Councils Program was developed in response to the demand from councils for energy efficiency and greenhouse abatement services beyond the Energy Smart Homes Program. Its goals for 2003/04 were to drive uptake of the Solar Access for Lots Guide and coordinate regional initiatives.

Results

A variety of resources were developed to Councils to assist in greenhouse reduction, including:

- **Hot Water calculator** (reported under the Energy Smart Hot Water section);
- **Photovoltaic 'Sun Power' Guide** to assist Councils assess development applications; and
- **'Solar Access for Lots' Guide** – a practical guide for developers and councils aimed at maximising solar access to living areas and living spaces for new homes in Greenfield subdivisions.

These resources were launched at a Solar Power seminar in September 2003 attended by 150 council and industry representatives.

Street Lighting initiatives that were supported by SEDA included financial support to the Southern Sydney Regional Organisation of Councils to promote energy efficient public light technology uptake; and to Coffs Harbour City Council for a public lighting trial, which was successful and has resulted in Council adopting the new technology as the first choice for public lighting. In addition, training was provided by SEDA and Country Energy to Coffs Harbour, Broken Hill and Tweed Shire Councils. SEDA also worked with DEUS on the development of the energy efficiency components in the *Draft NSW Public Lighting Code*.

Regional Energy Smart Weeks were delivered in Broken Hill and Tweed Shire Councils. These Energy Smart communications campaigns involving community forums, council training and media were successful in raising awareness of greenhouse issues and energy efficiency.

ENERGY SMART HOT WATER PROGRAM

Goal

This Program promoted the greenhouse benefits of solar, gas and heat pump hot water systems for NSW homes. While goals for solar and heat pump hot water systems were not established for 2003/04 as the program was concluding, hot water system promotions for consumers and industry continued in support of the Energy Smart Homes Policy.

Results

A total of 2009 hot water discounts were redeemed by residents in 2003/04. NSW households achieved $2.2 million in lifetime energy savings and reduced lifetime greenhouse gas by over 45,000 tonnes through the purchase and installation of solar and heat pump hot water systems. The discount ceased on 30 September 2003, but greenhouse friendly hot water continued to be promoted through: SEDA's website and Energy Smart Information Centre; the Federal Government's Renewable Energy Certificates; and through NSW's BASIX for new homes.

SEDA developed a web-based Hot Water Calculator at **www.energysmart.com.au/les** which shows how much various types of hot water systems will cost when purchase price, running costs and installation costs are taken into consideration. This has provided a useful tool for consumers, councils and industry to educate and assist potential buyers of water heaters on the benefits and cost effectiveness of solar and heat pump systems.

SEDA also engaged with the Master Plumbers Association and TAFE NSW to provide input into the development of an Enviroplumber Training Program. TAFE modules have been subsequently developed to train plumbers in the correct installation of water heating systems, including solar.

An independent study was conducted to investigate the performance of central solar water heaters in multi-unit developments. The report indicated that significant losses in energy are occurring from the circulating ring mains due to poor installation, amongst other things. Meetings with industry, water heater manufacturers and retailers were held to address these issues.

ENERGY STAR HOME ELECTRONICS & OFFICE EQUIPMENT

Goal

Building upon its relationships with the 26 office equipment and 10 home electronics companies who manufacture Energy Star compliant products, SEDA aimed to develop and deliver a national Energy Star advertising campaign on behalf of the Australian Greenhouse Office (AGO).

Results

During the reporting period SEDA coordinated and delivered the national advertising campaign. The campaign raised awareness of the Energy Star label

amongst consumers and increased the value of the label to manufacturers who use it on their products. The advertising featured in major metropolitan newspapers around the country, as well as Smart House magazine. Point of sale material was distributed to RetraVision stores nationally, and a public relations campaign saw Energy Star information appear in a large number of metro and local papers, and magazines. The campaign as a whole was very well received by manufacturers participating in the program.

Responsibility for Energy Star was handed back to the AGO at the end of the reporting period so that it can be centrally managed with other components of the AGO's National Standby Strategy.

ENERGY SMART PRODUCTS

Goal

The goal of Energy Smart Products is to raise the awareness, and increase purchase, of energy saving products by NSW households through a strategic partnership approach. Eleven Energy Smart Product Partners in seven product categories were projected for 2003/04.

Results

Eleven Energy Smart Product Partners in five product categories continue to support the initiative:

- Beasley Industries
- Dux Hot Water
- Edwards Hot Water
- Quantum Energy Systems
- Rheem / Solahart
- Rinnai
- Insulco
- Insulation Solutions
- Philips Lighting
- Interbath Showerheads
- Whirlpool

An air conditioning promotion, entitled "Don't let Santa swelter at your place this summer", was offered in November in conjunction with an insulation partner, offering discounted product and prizes, and Penrith Council.

The annual Energy Smart Home display at the Sydney Home Show continued its strong attendance in 2004 with over 1,500 people entering the competition to win energy efficiency products contributed by Partners.

Beyond the joint marketing initiatives with Partners, there were over 80 industry, council and community Energy Smart events supported by SEDA in 2003/04 with Energy Smart Products figuring prominently in all. The Energy Smart website (energysmart.com.au) received over 30,000 visitors to its energy saving tips.

An exciting addition to the marketing mix for Energy Smart Products was the introduction of SEDA's new Energy Smart Home Rating Program.

ENERGY SMART HOME RATING

Goal

Improvements in the greenhouse performance of NSW's existing homes are driven through both technology and behaviour change. A new program area, the Energy Smart Home Rating program was to be developed and trialled in an on-line self-assessment and in-home audit format in 2003/04 to deliver energy and greenhouse gas savings.

Results

The algorithms for home energy use and greenhouse performance were developed and incorporated into a user-friendly web presentation where users can quickly assess how their home's energy use compares to the state average, then explore in greater detail how to make improvements.

An Energy Smart Home Rating in-home audit was offered in Penrith and Kur-ring-gai Council areas in 2003/04 and was supported by the councils, energy retailers and product partners. Targeted promotions in these areas over 2 months resulted in 109 people doing a rating via the internet and 37 in-home audits. Feedback on the service and the website has been positive: "I'm stoked the bill has come down. I expect to get it down to $250 from $650…..now I'm down to $398 and that's only two months of the quarter with the changes", quoted one Penrith resident.

A Stakeholder Reference Group was established in 2003 to guide the development of the program strategy in 2003/04. Inquiries from councils and community groups on the greenhouse performance rating has been positive. The roll-out for 2004/05 will build on this feedback and that from the pilot program market research.

An in-home energy efficiency audit by accredited assessor, Helen Mounsey.

"I'm stoked the bill has come down. I expect to get it down to $250 from $650… ..now I'm down to $398 and that's only two months of the quarter with the changes."

COMMUNICATIONS & MARKETING

The goal of the Communications and Marketing team at SEDA is to bring about the attitudinal and behavioural change needed for the commercial success of sustainable energy technologies.

The team comprises a matrix of program-specific professionals who develop and implement communication activities with a focus on program stakeholders and clients. A core measure of our program success is the co-ordinated delivery and quality of SEDA's successful education and marketing initiatives.

We have strived for prudence, economy and effectiveness in all initiatives, to gain recognition of the NSW Government's greenhouse leadership through the Live Energy Smart, Work Energy Smart and Green Power brands in the energy and consumer market place.

A survey of users in August 2003 found that 37.1% of respondents had purchased an energy efficient product after receiving advice from ESIC consultants.

Market research conducted in late 2003 among clients of the Energy Smart Information Centre revealed a high level of satisfaction with the service and recognition of SEDA as a NSW State government body. The majority of calls or email requests to the centre represented a professional enquiry, home building query, request for research/ educational resources or alternative energy enquiry.

During the year, SEDA participated in a NSW multi agency social research project into Non English Speaking communities. The groups targeted were the Arabic, Cantonese, Greek, Italian, Korean, Macedonian, Mandarin, Spanish and Vietnamese speaking communities. The study involved both qualitative and quantitative research into general social and specifically environmental issues and awareness.

SEMINARS

Goal

SEDA's Seminars aim to provide a broad range of high-quality low-cost industry education, on a cost recovery basis.

Results

SEDA's Seminar and Events unit runs high quality seminars on a cost recovery basis to support the SEDA program areas. The seminars encourage knowledge sharing and networking, and heighten awareness of NSW government initiatives. During the reporting period SEDA's Seminar Co-ordinator ran a total of 15 seminars, reaching over 1200 sustainable energy industry participants. Over $100,000 in net revenue was achieved and subsequently channeled into the provision of further educational initiatives.

The seminar topics included: energy performance contracting, biodiesel development, Australian Building Greenhouse Rating case study seminar, cogeneration, wind farm development, becoming a solar advocate, heavy industrial energy efficiency, energy efficiency in the hotel sector, climate change and business risk management, and more.

In recognition of the synergies between water and energy efficiency, the 2004 Business Energy Efficiency seminar series is supported by major sponsor Sydney Water's Business water recycling and conservation program "every drop counts". SEDA and Sydney Water successfully ran two combined seminars in the reporting period; "water and energy efficiency; saving watts and drops" and "water and energy efficiency in the NSW health sector".

In planning and conducting all events and public communications initiatives SEDA adhered to our evolving Ethnic Affairs Priority Plan and our Disability Action Plan. SEDA has continued its partnership with Auspower Green Events to purchase an equivalent amount of Green Power required to run all seminars held, effectively eliminating greenhouse emissions caused through the delivery of our events.

ENERGY SMART ALLIES

Goal

The Energy Smart Allies Program aims to engage and monitor the growth of the sustainable energy industry of NSW.

Energy Smart Allies provides a clearing house for the many persons, companies and products that are crucial to delivering and achieving sustainability outcomes. Its reach goes beyond the product endorsement focus of Energy Smart Products.

Results

The Energy Smart Allies program keeps lines of communication open between SEDA and sustainable energy companies, to drive industry development and obtain stakeholder feedback on industry issues. SEDA manages an online directory, produces and distributes a newsletter to participating Allies, and provides networking and education opportunities. There was no budget allocated to this program during the reporting period, therefore the number of Energy Smart Allies remained stable.

ENERGY SMART INFORMATION CENTRE

Goal

The Energy Smart Information Centre's goal is to provide free, commercially-independent, knowledgeable and respected sustainable energy advice to all NSW residents and thereby grow the market for sustainable energy technologies.

Results

SEDA's Energy Smart Information Centre (ESIC) provides commercially impartial advice on energy efficient and renewable energy applications for the residential energy consumer. Over the reporting period ESIC responded to 5200 enquiries: 4300 phone enquiries, 700 emails and 80 in-person visits. ESIC consultants also attended over 50 community, local government and industry events during the period to help spread the Energy Smart word. A survey of users in August 2003 found that 37.1% of respondents had purchased an energy efficient product after receiving advice from ESIC consultants, while 34.8% of respondents had reduced their energy consumption and 29.2% had built or renovated an energy efficient home.

MARKET DEVELOPMENT AND POLICY

SEDA was established primarily as service delivery rather than a regulatory agency. While the agency had no regulatory powers, the Market Development and Policy team took a key role in informing and advising regulators, policy makers and stakeholders on measures to develop the NSW sustainable energy market.

During the reporting period SEDA continued to encourage greater awareness of the potential for network focused demand management by contributing to the consultation processes for the Independent Pricing and Regulatory Tribunal's (IPART) Electricity Distribution Pricing Determination for 2004/05 to 2008/09. This Determination set out clearer incentives for NSW distribution network businesses to undertake demand management and to recover related expenditure.

SEDA participated in the Review of the NSW DM Code of Practice for Electricity Distributors to create more streamlined and user-friendly ways to identify and value opportunities for demand management. SEDA assisted the Department of Energy, Utilities and Sustainability (DEUS) to develop the NSW Statement of System Opportunities Report by preparing maps of the emerging opportunities for demand management to address potential future network capacity constraints. These maps covered Sydney, Newcastle and the Lower Hunter Valley, the Illawarra and the Central Coast.

SEDA commissioned a survey of standby generators in NSW in order to gain an insight into the potential for these to contribute to reducing net demand on the electricity system at times of peak demand. The survey identified 283 standby generating units at 143 sites with a total capacity of 347 MW (approximately equal to the annual growth in electricity peak demand in NSW).

In conjunction with the CSIRO's Centre for Distributed Energy and Power (CenDEP), SEDA undertook a scoping study of the potential for demand management in Southeast Queensland for the Queensland electricity distribution network business, Energex Ltd. This project was undertaken on a cost recovery basis.

SEDA FINANCES AND ADMINSTRATION

In line with SEDA's Act and its strategic business plan, SEDA is to employ the available funds to optimise the commercialisation of sustainable energy technologies.

SEDA's financial and investment management strategy incorporates:

- an innovative program of projects to transform the marketplace in favour of sustainable energy technologies;
- a focus on long term partnerships with organisations in the residential, commercial, industrial and government sectors;
- appropriate risk identification and management;
- leveraging SEDA finances to generate optimal private investments in the sustainable energy industry; and
- where possible, to earn income from SEDA's commercial relationships, to meet the self-generated income targets as detailed in our Operational Business Plan.

FINANCIAL ASSISTANCE AND INVESTMENT

In 2003/04 grants totaled a gross amount of $2.295 million, slightly up on last year's gross total ($2.212 million). The grants were allocated mainly through SEDA's Coal Seam Methane program ($0.5 million) and in the Energy Smart residential program ($0.6 million), Photovoltaics Program ($0.5 million) and Renewable Energy Program ($0.2 million).

On Treasury's instruction, SEDA did not make any loans during the financial year.

PROGRAM EXPENDITURE

In addition to grants, SEDA's direct program expenditures relate to fees for program implementation, education and marketing services. Fees for program implementation increased by 9% from the previous year to $4.352 million, reflecting a continuing shift toward commercial evolution of SEDA's programs. Education and marketing expenditure totaled $693,000 to implement SEDA's continued marketing and communications strategies including Green Power.

REVENUES

SEDA's revenues totalled $2.595 million which represented a increase of $0.227 million on the previous year. This income was earned from interest received, provision of services and product sales, license fees and program contributions.

FORWARD BUDGET

Following the integration of SEDA into the Department of Energy, Utilities and Sustainability, treasury allocation for programs in 04 – 05 is part of DEUS's forward budget.

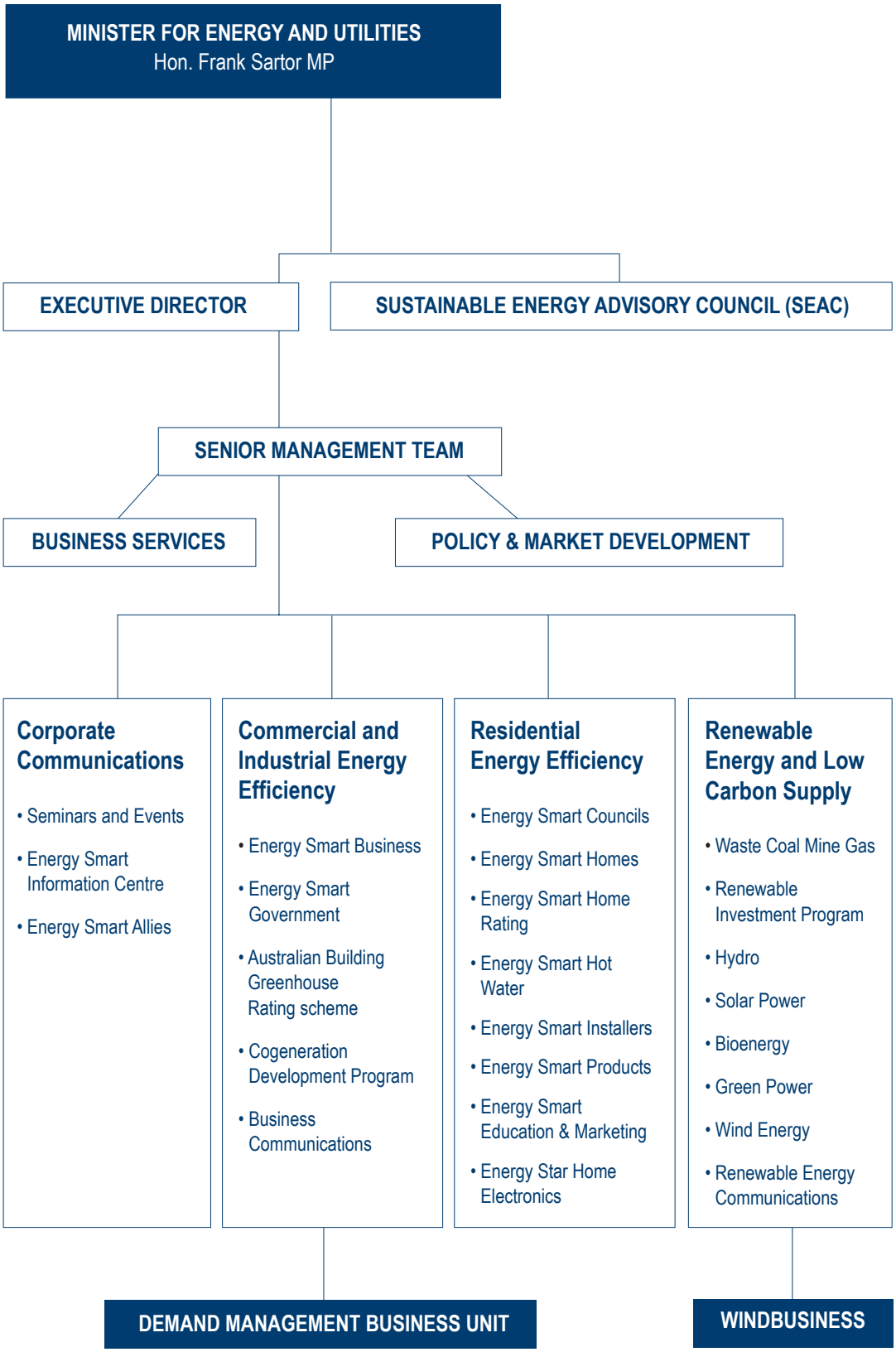
ASSETS AND LIABILITIES

SEDA's total assets are $13.382 million. This increase was largely due to an increase in cash on hand of $0.913 million from $1.095 million to $2.008 million and a decrease of non-current other financial assets of $1.069 million.

ADMINISTRATION

The Business Services Team manages administration, finances, legal contracts, and some human resource procedures and information systems services, while also coordinating communication with relevant government agencies in relation to SEDA's reporting obligations and administrative procedures. The team comprised the finances team, the executive assistant, two administrative officers closely aligned with program areas and a receptionist. In terms of financial reporting, Business Services produced monthly Treasury reports within 14 days from the month end through the year. The Authority received an unqualified report on the financial statements for the year ended June 2003. SEDA's information technology system was subject to ongoing maintenance and upgrades. As a result there was no significant IT incidents or loss of data. During the reporting period the individual training needs of SEDA's staff were met on a request basis.

SEDA'S STRUCTURE



EQUAL EMPLOYMENT OPPORTUNITY

A. TRENDS IN THE REPRESENTATION OF EEO GROUPS

	% of Total Staff				
EEO Group	Benchmark or Target	2001	2002	2003	2004
Women	50%	54%	60%	58%	61%
Aboriginal people and Torres Strait Islanders	2%	0%	0%	0%	0%
People whose first language was not English	20%	5%	2%	2%	6%
People with a disability	12%	0%	0%	0%	0%
People with a disability requiring work-related adjustment	7%	0%	0%	0%	0%

B. TRENDS IN THE DISTRIBUTION OF EEO GROUPS

	Distribution Index				
EEO Group	Benchmark or Target	2001	2002	2003	2004
Women	100	n/a	n/a	n/a	n/a
Aboriginal people and Torres Strait Islanders	100	0	0	0	0
People whose first language was not English	100	n/a	n/a	n/a	n/a
People with a disability	100	0	0	0	0
People with a disability requiring work-related adjustment	100	0	0	0	0

Notes:

1. Staff numbers are as at 30 June 2004
2. Excludes casual staff
3. A Distribution Index of 100 indicates that the centre of the distribution of the EEO group across salary levels is equivalent to that of other staff. Values less than 100 mean that the EEO group tends to be more concentrated at lower salary levels.
4. The Distribution Index is not calculated where EEO group or non-EEO group numbers are less than 20.

Solutions for the future SEDA

SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2004

Pursuant to Section 41C (1C) of the Public Finance and Audit Act 1983, I state that:

a) the accompanying financial statements have been prepared in accordance with the applicable Australian Accounting Standard, the requirements of the Public Finance and Audit Act 1983, the Public Finance and Audit Regulations, the Financial Reporting Directions published in the Financial Reporting Code for Budget Dependent General Government Sector Agencies, the Treasurer's Directions and other authoritative pronouncements of the Australian Accounting Standards Board (AASB) and Urgent Issues Group (UIG) Consensus Views;

b) the Statement of Financial Performance presents a true and fair view of the results of the Authority for the year ended 30 June 2004; and

c) the Statement of Financial Position gives a true and fair view of the state of affairs of the Authority as at 30 June 2004; and

d) there are no circumstances which would render any particulars included in the financial statements to be misleading or inaccurate.

David Nemtzow

DAVID NEMTZOW
EXECUTIVE DIRECTOR as at 30 June 2004
20 October 2004

Sustainable Energy Development Authority
ABN 80 526 465 581
Level 6, 45 Clarence Street Sydney
PO Box N442 Grosvenor Place NSW 1220 Australia
Telephone + 61 2 9249 6100 **Facsimile** + 61 2 9299 1519 **Email** seda@seda.nsw.gov.au **Web Site** www.seda.nsw.gov.au

GPO BOX 12
SYDNEY NSW 2001

INDEPENDENT AUDIT REPORT

SUSTAINABLE ENERGY DEVELOPMENT AUTHORITY

To Members of the New South Wales Parliament

Audit Opinion

In my opinion, the financial report of the Sustainable Energy Development Authority:

(a) presents fairly the Authority's financial position as at 30 June 2004 and its financial performance and cash flows for the year ended on that date, in accordance with applicable Accounting Standards and other mandatory professional reporting requirements in Australia, and

(b) complies with sections 41B and 41BA of the *Public Finance and Audit Act 1983* (the Act).

My opinion should be read in conjunction with the rest of this report.

The Director-General's Role

The financial report is the responsibility of the Director-General of the Department of Energy, Utilities and Sustainability. It consists of the statement of financial position, the statement of financial performance, the statement of cash flows, the program statement - expenses and revenues, the summary of compliance with financial directives and the accompanying notes.

The Auditor's Role and the Audit Scope

As required by the Act, I carried out an independent audit to enable me to express an opinion on the financial report. My audit provides *reasonable assurance* to Members of the New South Wales Parliament that the financial report is free of *material* misstatement.

My audit accorded with Australian Auditing and Assurance Standards and statutory requirements, and I:

- evaluated the accounting policies and significant accounting estimates used by the Director-General in preparing the financial report, and
- examined a sample of the evidence that supports the amounts and other disclosures in the financial report.

An audit does *not* guarantee that every amount and disclosure in the financial report is error free. The terms 'reasonable assurance' and 'material' recognise that an audit does not examine all evidence and transactions. However, the audit procedures used should identify errors or omissions significant enough to adversely affect decisions made by users of the financial report or indicate that the Director-General had not fulfilled his reporting obligations.

My opinion does *not* provide assurance:

- about the future viability of the Authority,
- that the Authority has carried out its activities effectively, efficiently and economically,
- about the effectiveness of its internal controls, or
- on the assumptions used in formulating the budget figures disclosed in the financial report.

Audit Independence

The Audit Office complies with all applicable independence requirements of Australian professional ethical pronouncements. The Act further promotes independence by:

- providing that only Parliament, and not the executive government, can remove an Auditor-General, and
- mandating the Auditor-General as auditor of public sector agencies but precluding the provision of non-audit services, thus ensuring the Auditor-General and the Audit Office are not compromised in their role by the possibility of losing clients or income.

M P Abood CPA
Director of Audit

SYDNEY
21 October 2004

BEGINNING OF AUDITED FINANCIAL STATEMENTS

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 30 JUNE 2004

	Notes	Actual 2004 $'000	Budget 2004 $'000	Actual 2003 $'000
Expenses				
Operating expenses				
Employee related	3(a)	2,948	3,764	3,620
Other operating expenses	3(b)	2,014	1,490	1,839
Maintenance		9	10	10
Depreciation and amortisation	3(c)	334	177	309
Grants and subsidies	3(d)	1,527	1,546	1,412
Other expenses	3(e)	5,045	2,818	4,753
Total Expenses		11,877	9,805	11,943
Less:				
Retained Revenue				
Sale of goods and services	4(a)	1,228	1,353	640
Investment income	4(b)	513	187	345
Grants and contributions	4(c)	557	1,221	362
Other revenue	4(d)	297	520	1,021
Total Retained Revenue		2,595	3,281	2,368
Gain / (loss) on disposal of non-current assets	5	(13)	-	-
Net Cost of Services	18	**9,295**	**6,524**	**9,575**
Government Contributions				
Recurrent appropriation	6	9,169	8,839	9,362
Capital appropriation	6	-	1,000	1,000
Acceptance by the Crown Entity of employee benefits and other liabilities	7	260	241	336
Total Government Contributions		9,429	10,080	10,698
SURPLUS / (DEFICIT) FOR THE YEAR FROM ORDINARY ACTIVITIES		**134**	**3,556**	**1,123**
SURPLUS / (DEFICIT) FOR THE YEAR		**134**	**3,556**	**1,123**
TOTAL REVENUES, EXPENSES AND VALUATION ADJUSTMENTS RECOGNISED DIRECTLY IN EQUITY		**-**	**-**	**-**
TOTAL CHANGES IN EQUITY OTHER THAN THOSE RESULTING FROM TRANSACTIONS WITH OWNERS AS OWNERS	15	**134**	**3,556**	**1,123**

The accompanying notes form part of these statements

STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2004

	Notes	Actual 2004 $'000	Budget 2004 $'000	Actual 2003 $'000
ASSETS				
Current Assets				
Cash	8	2,008	3,214	1,095
Receivables	10	1,542	1,134	896
Other financial assets	9	908	1,420	1,074
Total Current Assets		4,458	5,768	3,065
Non - Current Assets				
Other financial assets	9	8,505	11,396	9,574
Property, Plant and Equipment – Plant and Equipment	11	419	633	699
Total Non - Current Assets		8,924	12,029	10,273
Total Assets		13,382	17,797	13,338
LIABILITIES				
Current Liabilities				
Payables	13	563	815	639
Provisions	14	156	153	168
Total Current Liabilities		719	968	807
Non-Current Liabilities				
Provisions	14	11	-	13
Total Non - Current Liabilities		11	-	13
Total Liabilities		730	968	820
Net Assets		12,652	16,829	12,518
Equity				
Accumulated Funds	15	12,652	16,829	12,518
Total Equity		12,652	16,829	12,518

The accompanying notes form part of these statements

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2004

	Notes	Actual 2004 $'000	Budget 2004 $'000	Actual 2003 $'000
CASH FLOWS FROM OPERATING ACTIVITIES				
Payments				
Employee related		(2,881)	(3,657)	(3,508)
Grants and subsidies		(1,527)	(1,546)	(1,412)
Other		(8,225)	(4,675)	(7,773)
Total payments		(12,633)	(9,878)	(12,693)
Receipts				
Sale of goods and services		485	1,353	865
Interest received		313	187	318
Other		2,326	2,096	2,687
Total receipts		3,124	3,636	3,870
Cash flows from Government				
Recurrent appropriation		9,169	8,839	9,362
Capital appropriation		-	1,000	1,000
Cash reimbursements from the Crown Entity		206	241	239
Net Cash Flows from Government		9,375	10,080	10,601
NET CASH FLOWS FROM OPERATING ACTIVITIES	18	(134)	3,838	1,778
CASH FLOWS FROM INVESTING ACTIVITIES				
Advance repayments received		1,114	921	1,048
Proceeds from sale of Plant and Equipment		4	-	-
Purchases of Plant and Equipment		(71)	(50)	(39)
Advances made		-	(3,000)	(2,150)
NET CASH FLOWS FROM INVESTING ACTIVITIES		1,047	(2,129)	(1,141)
NET INCREASE / (DECREASE) IN CASH		913	1,709	637
Opening cash and cash equivalents		1,095	1,505	458
CLOSING CASH AND CASH EQUIVALENTS	8	2,008	3,214	1,095

The accompanying notes form part of these statements

SUMMARY OF COMPLIANCE WITH FINANCIAL DIRECTIVES

	2004				2003			
	RECURRENT APP'N $'000	EXPENDITURE/ NET CLAIM ON CONSOLIDATED FUND $'000	CAPITAL APP'N $'000	EXPENDITURE / NET CLAIM ON CONFUND $'000	RECURRENT APP'N $'000	EXPENDITURE $'000	CAPITAL APP'N $'000	EXPENDITURE $'000
Original Budget Appropriation/ Expenditure								
Appropriation Act	8,839	8,839	1,000	-	9,362	9,362	1,000	1,000
Additional Appropriations	330	330	-	-				
s21A PF&AA- special appropriation	-	-	-	-	-	-	-	-
s24 PF&AA- transfers of functions between departments	-	-	-	-	-	-	-	-
s26 PF&AA- Commonwealth specific purpose payments	-	-	-	-	-	-	-	-
	9,169	9,169	1,000	-	9,362	9,362	1,000	1,000
OTHER APPROPRIATIONS / EXPENDITURE								
Treasurer's Advance	-	-	-	-	-	-	-	-
Section 22- expenditure for certain works and services	-	-	-	-	-	-	-	-
Transfers to / from another agency (s25 of the Appropriation Act)	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
Total Appropriations/ Expenditure / Net Claim on Consolidated Fund (includes transfer payments)	9,169	9,169	1,000	-	9,362	9,362	1,000	1,000
Amount drawn down against Appropriation	-	9,169	-	-	-	9,362	-	1,000
Liability to Consolidated Fund	-	-	-	-	-	-	-	-

The Summary of Compliance is based on the assumption that Consolidated Fund moneys are spent first (except where otherwise identified or prescribed).
The Sustainable Energy Development Authority was instructed by Treasury not to draw down the Capital Appropriation.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

1. REPORTING ENTITY

The Sustainable Energy Development Authority was established under the The Sustainable Energy Development Act 1995 No96 (the Act).

The Act established a Sustainable Energy Fund which is to be administered by the Authority. In the course of carrying out its functions under the Act, the Authority provides energy development assistance that includes the ability to make grants, subsidies and loans.

Program control of the Sustainable Energy Development Authority is exercised through the use of one Budget Program, 'Reduce Adverse Environmental Impacts of Energy Use'. This is further achieved through the following portfolios:

(a) Energy Efficiency
targets specific sectors of energy consumption (eg industrial, commercial, residential) or specific technology (eg water heaters, air conditioning) or practice (lighting installation management); and encourages more efficient delivery of energy services.

(b) Co-generation and fuel substitution
promotes the use of fossil fuel to generate electricity and heat at the same time, such that the overall efficiency of fuel use is high, or use of non toxic waste materials from agricultural or manufacturing processes for power generation and concurrent heat production.

Fuel substitution process for power generation and concurrent heat production involve programs concerned with the substitution of more carbon intensive energy forms (eg coal generated electricity) with less carbon intensive energy forms (eg natural gas).

(c) Renewable Energy
expands, strengthens and aids in the development of the market for renewable energy technologies.

(d) Core
essential support programs encompassing energy policy development, information, education and training and advisory services.

(e) Business Services
provides the overall corporate support services for the Authority.

As the Authority has only one program the Financial Reporting Code for Budget Dependent General Government Sector Agencies does not require details of expenses and revenues to be produced in a Program Statement as this information is already available in the Statement of Financial Performance.

(f) Other
NSW Treasury instructed the Authority not to offer financial assistance by way of loans in the financial year ended 30 June 2004 as this financial assistance function is to be reviewed in the following financial year.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting
The Authority's financial statements are a general- purpose financial report which has been prepared on an accruals basis and in accordance with:

- Applicable Australian Accounting Standards;
- Other authoritative pronouncements of the Australian Accounting Standards Board (AASB);
- Urgent Issues Group (UIG) Consensus Views;
- The requirements of the Public Finance and Audit Act and Regulations; and
- The Financial Reporting Directions published in the Financial Reporting Code for Budget Dependent General Government Sector Agencies or issued by the Treasurer under section 9(2)(n) of the Act.

Where there are inconsistencies between the above requirements, the legislative provisions have prevailed.

In the absence of a specific Accounting Standard, other authoritative pronouncements of the AASB or UIG Consensus View, the hierarchy of other pronouncements as outlined in AAS 6 "Accounting Policies" is considered.

The financial statements are prepared in accordance with historical cost.

All amounts are rounded to the nearest one thousand dollars and are expressed in Australian currency. The accounting policies adopted are consistent with those of the previous year.

(b) Administered Activities
There are no administered activities.

(c) Revenue Recognition

Revenue is recognised when the Authority has control of the good or right to receive,it is probable that the economic benefits will flow to the Authority and the amount of revenue can be measured reliably. Additional comments regarding the accounting policies for the recognition of revenue are discussed below.

(i) Parliamentary appropriations and Contributions from Other Bodies

Parliamentary appropriations and contributions from other bodies (including grants and donations) are generally recognised as revenues when the agency obtains control over the assets comprising the appropriations / contributions.

Control over appropriations and contributions is normally obtained upon the receipt of cash.

An exception to the above is when appropriations are unspent at year-end. In this case, the authority to spend the money lapses and generally the unspent amount must be repaid to the Consolidated Fund in the following financial year. As a result, unspent appropriations are now accounted for as liabilities rather than revenue. The Authority has no unspent appropriations for the year ended 30 June 2004.

(ii) Sale of Goods and Services

Revenue from the sale of goods and services comprises revenue from the provision of products or services ie user charges. User charges are recognised as revenue when the Authority obtains control of the assets that result from them.

(iii) Investment income

Interest revenue is recognised as it accrues.

(d) Employee Benefits and other provisions

(i) Salaries and Wages, Annual Leave, Sick Leave and On-Costs

Liabilities for salaries, wages and annual leave are recognised and measured in respect of employees' services up to the reporting date at nominal amounts based on the amounts expected to be paid when the liabilities are settled.

Unused non vesting sick leave does not give rise to a liability as it is not considered probable that sick leave taken in the future will be greater than the benefits that accrue in the future.

The outstanding amounts of payroll tax, workers' compensation insurance premiums and fringe benefits tax, which are consequential to employment, are recognised as liabilities and expenses where the employee benefits to which they relate have been recognised.

(ii) Long Service Leave and Superannuation

The Authority's Liabilities for long service leave and superannuation are assumed by the Crown Entity. The Authority accounts for the liability as having been extinguished resulting in the amount assumed being shown as part of the non- monetary revenue item described as "Acceptance by the Crown Entity of Employees Benefits and other Liabilities".

Long service leave is measured on a short-hand basis. The short-hand method is based on the remuneration rates at year-end for all employees with five or more years of service. It is considered that this measurement technique produces results not materially different from the estimate determined by using the present value basis of measurement.

The Superannuation expense for the financial year is determined by using the formula specified in the Treasurer's Directions. The expense for certain superannuation schemes (ie Basic Benefit and First State Super) is calculated as a percentage of the employees' salary. For other superannuation schemes (ie State Superannuation Scheme and State Authorities Superannuation Scheme), the expense is calculated as a multiple of the employees' superannuation contributions.

(iii) Other Provisions

Other provisions exist when the Authority has a present legal, equitable or constructive obligation to make a future sacrifice of economic benefits to other entities as a result of past transactions or other past events. These provisions are recognised when it is probable that a future sacrifice of economic benefits will be required and the amount can be measured reliably.

Any provisions for restructuring are recognised either when a detailed formal plan has been developed or will be developed within prescribed time limits and where the Authority has raised a valid expectation in those affected by the restructuring that it will carry out the restructuring.

(e) Insurance

The Authority's insurance activities are conducted through the NSW Treasury Managed Fund Scheme of self insurance for Government agencies. The expense (premium) is determined by the Fund Manager based on past experience.

(f) Acquisition of Assets

The cost method of accounting is used for the initial recording of all acquisitions of assets controlled by the Authority. Cost is determined as the fair value of the assets given as consideration plus the costs incidental to the acquisition.

Fair value means the amount for which an asset could be exchanged between a knowledgeable, willing buyer and a knowledgeable, willing seller in an arm's length transaction.

(g) Plant and Equipment

Plant and equipment costing $5,000 and above are individually capitalised except for items of Computer hardware which are all capitalised.

(h) Depreciation of Non-Current Physical Assets

Depreciation is provided for on a straight line basis for all depreciable assets so as to write off the depreciable amount of each asset as it is consumed over its useful life to the entity.

All material separately identifiable component assets are recognised and depreciated over their shorter useful lives, including those components that in effect represent major periodic maintenance. Depreciation of each class of depreciable assets are as follows:

Furniture and Fittings 20% pa, Office Equipment 20% pa, Computer Equipment 25% pa.

Other includes the Photovoltaic Systems 5% PA and the Wind Monitoring Towers 23%PA.

(i) Revaluation of Non-Current Physical Assets.

SEDA was established in 1996 (through the NSW Government Sustainable Energy Act 1995) to reduce energy associated gas emissions. In accordance with the Financial Reporting Code for Budget Dependent General Government Sector Agencies and Treasury Circular 91/20 each class of Non-Current Physical Assets are to be revalued every 5 years.

The Authority has reviewed each class of asset and has concluded that given the life expectancy of the Non-Current Physical Assets, the carrying value of these assets is a reasonable approximation of fair value.

(j) Leased Assets

A distinction is made between finance leases which effectively transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of the leased assets, and operating leases under which the lessor effectively retains all such risks and benefits.

Operating lease payments are charged to the Statement of Financial Performance in the periods in which they are incurred. The Authority has no finance leases.

(k) Receivables

Receivables are recognised and carried at cost. Bad debts are written off as incurred.

(l) Trust Funds

The Authority received monies in a trustee capacity as set out in Note 22. As the Authority performs only a custodial role in respect of these monies, and because the monies cannot be used for the achievement of the Authority's own objectives, they are not brought to account in the financial statements.

(m) Payables

These amounts represent liabilities for goods and services provided to the Authority.

(n) Accounting for the Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where: the amount of GST incurred by the Authority as a purchaser that is not recoverable from the Australian Taxation Office is recognised as part of the cost of acquisition of an asset or as part of an item of expense. Receivables and payables are stated with the amount of GST included.

(o) Budgeted amounts

The budgeted amounts are drawn from the budgets as formulated at the beginning of the financial year and with any adjustments for the effects of additional appropriations, s 21A,s 24 and/or s 26 of the Public Finance and Audit Act 1983. The budgeted amounts in the Statement of Financial Performance and the Statement of Cash Flows are generally based on the amounts disclosed in the NSW Budget Papers,(as adjusted above). However, in the Statement of Financial Position the amounts vary from the Budget Papers, as the opening balances of the budgeted amounts are based on carried forward actual amounts ie. per the audited financial statements (rather than carried forward estimates).

3. EXPENSES

	2004 $'000	2003 $'000
(a) Employee related expenses		
Salaries and wages (including recreation leave)	2,475	2,986
Long Service Leave	26	68
Superannuation	288	326
Workers' compensation insurance	15	21
Payroll tax and fringe benefit tax	141	186
Other	3	33
	2,948	**3,620**
(b) Other operating expenses		
Auditor's remuneration – audit of the financial reports	18	15
Bad and doubtful debts	7	6
Operating lease rental expense - minimum lease payments	576	538
Insurance	10	6
Travel	123	148
Communications and information technology	224	254
Miscellaneous office expenditure and stores	127	140
Staff training, development and conferences	178	206
Other business services	278	332
"Make good" of previous tenancy & office move	281	-
Other expenses	192	194
	2,014	**1,839**
(c) Depreciation and Amortisation		
Depreciation		
Computer equipment	15	25
Fixtures and fittings	-	-
Office machines and equipment	5	6
Other	314	278
	334	**309**
(d) Grants and Subsidies		
Energy Efficiency Program		
Energy Efficiency - commercial / industrial / government	166	22
Energy Smart - domestic sector	575	737
	741	759

Renewable Energy Technology Program		
Bioenergy technology	(369)	247
Green Power direct marketing	10	23
Programs / Wind, Hydro and Solar Thermal Electric	131	(554)
Photovoltaics technology	513	222
Coal Seam Methane	450	600
	735	538
Cogeneration Program		
Cogeneration Technology	3	12
Core Program		
Energy efficiency	48	103
Total Grants & Subsidies	**1,527**	**1,412**
(e) Other Expenses		
Education and marketing	693	754
Fee for service program delivery	4,352	3,999
	5,045	**4,753**

4. REVENUES

	2004 $'000	2003 $'000
(a) Sale of goods and rendering of Services		
Sale of goods		
Photovoltaic Systems output	11	12
Assessment Reports	45	79
Rendering of Services		
Residential Programs	2	6
AGO RRPG PV Rebate Programs	23	13
Building Greenhouse Rating Scheme	208	205
Energy Star Program	50	50
Commercial/Industrial/Government	460	166
AGO Photovoltaic Program Rebate	93	109
Wind Mapping and Monitoring Services	336	-
	1,228	**640**
(b) Investment Income		
Interest from NSW Treasury Cash Management System	151	126
Interest on Loans	362	219
	513	**345**

(c) Contributions		
Residential Program contributions	-	66
Wind Monitoring Program contribution	3	8
Co-generation Development Program	72	46
Green Power marketing and accreditation contributions	158	147
Waste Coal Seam Methane contribution	6	95
Solar in Schools Partner contribution	318	-
	557	**362**
(d) Other Revenue		
Green Globe Award	20	21
Sustainable Energy Export	18	29
Licence Fees	17	77
Seminars	48	124
Benchmarks	34	113
Wind Licence Fees	30	226
Wind	24	185
Distributed Energy Systems	-	50
Other	106	196
	297	**1,021**

5. GAIN/(LOSS) ON DISPOSAL OF NON-CURRENT ASSETS

	2004 $'000	2003 $'000
Proceeds from disposals	4	-
Written down value of assets disposed of	(17)	-
Gain/(loss) on sale of non-current assets	**(13)**	**-**

6. APPROPRIATIONS

	2004 $'000	2003 $'000
Recurrent Appropriations		
Total recurrent drawdowns from Treasury (per Summary of Compliance)	9,169	9,362
Less: Liability to Consolidated Fund (per Summary of Compliance)	-	-
	9,169	**9,362**
Comprising:		
Recurrent appropriations (per Statement of Financial Performance)	9,169	9,362

Transfer Payments	-	-
	9,169	**9,362**
Capital Appropriations		
Total capital drawdowns from Treasury (per Summary of Compliance)	-	1,000
Less: Liability to Consolidated Fund (per Summary of Compliance)	-	-
	-	**1,000**
Comprising:		
Capital appropriations (per Statement of Financial Performance)	-	1,000
Transfer Payments	-	-
	-	**1,000**

Treasury advised the Authority that it was not to draw down the Capital Appropriation this year as the Capital program of the Authority is subject to a review in the next Financial Year.

7. ACCEPTANCE BY THE CROWN ENTITY OF EMPLOYEE BENEFITS AND OTHER LIABILITIES

	2004 $'000	2003 $'000
The following liabilities and / or expenses have been assumed by the Crown Entity :		
Superannuation	221	257
Long Service Leave	26	63
Payroll tax	13	16
	260	**336**

8. CURRENT ASSETS – CASH

	2004 $'000	2003 $'000
Cash at bank and on hand	2,008	1,095
	2,008	**1,095**
For the purposes of the Statement of Cash Flows, cash includes cash on hand, cash at bank and bank overdraft.		
Cash assets recognised in the Statement of Financial Position are reconciled to cash at the end of the financial year as shown in the Statement of Cash Flows as follows:		
Cash (per Statement of Financial Position)	2,008	1,095
Closing cash and cash Equivalents (per Statement of Cash Flows)	**2,008**	**1,095**

9. CURRENT / NON-CURRENT ASSETS – OTHER FINANCIAL ASSETS

	2004 $'000	2003 $'000
Current		
Other Loans and Deposits		
Co-generation program	200	261
Renewable Energy Technology Program	576	634
Energy Efficiency	132	179
	908	**1,074**
Non-Current		
Other Loans and Deposits		
Co-generation program	1,522	1,722
Renewable Energy Technology Program	5,223	5,759
Less Provision for Dimunition of Value	(178)	(57)
Energy Efficiency	1,223	1,355
Shares		
Convertible Redeemable Preference Shares	685	765
Ordinary Shares	30	30
	8,505	**9,574**

Significant terms and conditions

Loans are usually secured by bank or company guarantees or fixed or floating charge over the assets and are repayable in instalments over periods as indicated in Note 23. Convertible Redeemable Preference Shares are subject to a repayment program over 8 years with interest @ 3% calculated daily and payable on 1st January and 30th June each year. The Authority has made a partial reduction in the value of two Non-Current Loans.These reductions reflect a possible change in circumstances associated with the terms of repayment.These issues are currently subject to negotiation between the parties.

10 CURRENT ASSETS – RECEIVABLES

	2004 $'000	2003 $'000
Interest from NSW Treasury cash management system	95	73
Interest on loans	273	96
Debtors	755	501
Prepayments	127	35
GST Receivable	292	191
	1,542	**896**

11. NON-CURRENT ASSETS – PROPERTY, PLANT AND EQUIPMENT

Plant and Equipment	Furniture & Fittings $'000	Office Equipment $'000	Computer Equipment $'000	Other $'000	Total $'000
2004					
Carrying amount at start of year	3	10	21	665	699
Additions	-	-	-	71	71
Disposals	-	-	-	(17)	(17)
Acquisitions through administrative restructures	-	-	-	-	-
Net revaluation increment less revaluation decrements	-	-	-	-	-
Depreciation Expense	-	(5)	(15)	(314)	(334)
Carrying amount at end of year	**3**	**5**	**6**	**405**	**419**
2003					
Carrying amount at start of year	3	16	46	904	969
Additions	-	-	-	39	39
Disposals	-	-	-	-	-
Acquisitions through administrative restructures	-	-	-	-	-
Net revaluation increment less revaluation decrements	-	-	-	-	-
Depreciation Expense	-	(6)	(25)	(278)	(309)
Carrying amount at end of year	**3**	**10**	**21**	**665**	**699**

The "Other" category of Non-Current Assets consists of Wind Monitoring Towers as part of the NSW Wind Resource Mapping Program and the Photovoltaic systems.

12. NON-CURRENT ASSETS – PROPERTY, PLANT AND EQUIPMENT

	2004 $'000	2003 $'000
Plant and Equipment		
At Fair Value	2,104	2,038
	2,104	**2,038**
Less Accumulated Depreciation	1,685	1,339
	1,685	**1,339**
Total Property, Plant and Equipment at Fair Value	**419**	**699**

The Authority continues to derive service potential and economic benefit from assets with a cost value of $629,495. These assets have been fully depreciated.

Computer Equipment	63	Items	$266,148
Furniture & Fittings	16	Items	$277,415
Office Equipment	7	Items	$85,932
Total	**86**	**Items**	**$629,495**

13. CURRENT LIABILITIES – PAYABLES

	2004 $'000	2003 $'000
Creditors	119	384
Accrued expenses	131	29
Contributions in Advance	221	126
Accrued salaries, wages and on-costs	92	100
	563	**639**

14. CURRENT / NON-CURRENT LIABILITIES – PROVISIONS

Current		
Employee benefits and related on-costs		
Recreation leave	137	168
Provision for "make good" of previous tenancy and office move	19	-
	156	**168**
Non-Current		
Employee benefits and related on-costs	11	13
	11	**13**

15. CHANGES IN EQUITY

Balance as at the beginning of the financial year	12,518	11,395
Surplus / (deficit) for the year	134	1,123
Balance as at the end of the financial year	**12,652**	**12,518**

16. CONTINGENT LIABILITIES

As at 30 June 2004, the Authority had no Contingent Liabilities.	-	138
	-	**138**

17. COMMITMENTS FOR EXPENDITURE

(a) Operating Lease Commitments		
Future non-cancellable operating lease rentals not provided for and payable:		
Not later than one year	102	793
Later than one year and not later than five years	20	170
Later than five years	-	-
Total (including GST)	**122**	**963**

18. RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES TO NET COST OF SERVICES

	2004 $'000	2003 $'000
Net cash used on operating activities	(134)	(1,778)
Cash Flows from Government / Appropriations	9,169	10,362
Depreciation and amortisation	334	309
Acceptance by the Crown Entity of employee entitlements and other liabilities	54	336
Loss on sale of property, plant and equipment	13	-
(Increase) / decrease in provisions	14	(34)
Increase / (decrease) in receivables and prepayments	646	(355)
Increase / (decrease) in creditors	(76)	(100)
Repayment of Grants and Subsidies	(725)	835
Net cost of services	**9,295**	**9,575**

19. BUDGET REVIEW

NET COST OF SERVICE

An increase of $2,072,000 in Total Expenses and a reduction of $686,000 in Total Retained Revenue results in a variance in Net Cost of Services of $2,771,000 compared to 2003/2004 budget. The budget figure reflected the relatively low Net Cost of Services forecasts used when Controlled Net Cost of Services limits were adopted as the primary budget control for NSW budget dependant agencies in 2001.These forecasts did not allow for the Authority to spend all revenue it generated through self funding and fee for service activities.

ASSETS & LIABILITIES

Net assets decreased compared to budget by $4,177,000. This variance comprises of a decrease in Cash of $1,206,000 and a decrease of $512,000 in Current Other Financial Assets offset by an increase in Receivables of $408,000 to give an overall decrease in Current Assets of $1,310,000.

In addition there was a decrease in Non-Current Assets of $3,105,000 attributable mainly to a decrease of $2,891,000 in Other Financial Assets.

Current Liabilities decreased by $249,000 comprising mainly of a reduction of $252,000 in payables.

CASH FLOWS

There was a net decrease in cash compared to budget of $1,206,000.

Cash flows from Operating Activities were impacted by a reduction in Revenue receipts and by an increase in other program expenditure.

Cash flows from Investing Activities were influenced by increased loan repayments offset by the fact that the Authority was instructed by Treasury not to offer any Financial Assistance this year.

20. PROGRAM OF THE AUTHORITY

48.1.1 Reduce Adverse Environmental Impacts Of Energy Use

The program objectives are to reduce greenhouse gas emissions and other adverse by-products of the generation and use of energy, and to encourage the development, commercialisation, promotion and use of sustainable energy technology.

21. AFTER BALANCE DATE EVENTS

The Authority was abolished by the Sustainable Energy Development Repeal Act 2004 No 64, effective 1 July 2004. The operations of the Authority have been incorporated into the Department of Energy, Utilities and Sustainability. Under the Repeal Act all of the Authority's assets and liabilities have become the assets and liabilities of the Crown.

22. TRUST FUNDS

The Authority holds money in a Trust Fund which is used for the Australian Greenhouse Office photovoltaics rebate scheme. These monies are excluded from the financial statements as the Authority cannot use them for the achievement of its objectives. The following is a summary of the transactions in the trust account:

Cash balance at the beginning of the financial year	426	1,148
Add: Receipts	1,433	1,498
Less: Expenditure	(1,390)	(2,220)
Cash balance at the end of the reporting period	**469**	**426**

23. FINANCIAL INSTRUMENTS

Financial instruments are carried in the Accounts at net fair value unless otherwise stated.

Interest rate risk

Interest rate risk is the risk that the value of the financial instruments will fluctuate due to changes in market interest rates. The Authority's exposure to interest rate risk and the effective interest rates of financial assets and liabilities, both recognised and unrecognised as at 30 June 2004 are as follows:

	Floating Interest Rate		1 Year or Less		Over 1 to 5 Years		Over 5 Years		Non-Interest Bearing		Total Carrying Amount as per Statement of Financial Position		Weighted Average Effective Interest Rate	
	2004 $'000	2003 $'000	2004 $'000	2003 $'000	2004 $'000	2003 $'000	2004 $'000	2003 $'000	2004 $'000	2003 $'000	2004 $'000	2003 $'000	2004 $'000	2003 $'000
Financial Assets														
Loans-non-interest	-	-	130	514	60	190	-	-	-	-	190	704	N/A	N/A
Loans-fixed interest	-	-	651	450	2,387	2,666	1,804	2,176	-	-	4,842	5,292	5.1%	4.3%
Loans-variable interest	-	-	110	110	1,816	1,877	1,740	1,870	-	-	3,666	3,857	5.6%	5.6%
Shares	-	-	110	110	575	544	30	140	-	-	715	794	3.0%	3.0%
Receivables	-	-	-	-	-	-	-	-	1,415	861	1,415	861	N/A	N/A
Cash	2,008	1,095	-	-	-	-	-	-	-	-	2,008	1,095	4.0%	3.8%
Total	**2,008**	**1,095**	**1,001**	**1,184**	**4,838**	**5,277**	**3,574**	**4,186**	**1,415**	**861**	**12,836**	**12,603**	**-**	**-**
Financial Liabilities														
Payables	-	-	-	-	-	-	-	-	563	639	563	639	N/A	N/A
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**563**	**639**	**563**	**639**	**-**	**-**

Credit Risk

Credit risk is the risk of financial loss arising from another party to a contract or financial position failing to discharge a financial obligation thereunder.The Authority's maximum exposure to a credit risk is represented by carrying amounts of financial assets in the Statement of Financial Position.

END OF AUDITED FINANCIAL STATEMENTS

APPENDIX 1
ACCESS

The Sustainable Energy Development Authority has relocated to:
Level 17, 227 Elizabeth Street, Sydney
Office hours are 8.30am – 5.30pm Monday to Friday.

Postal address:
GPO Box 3889, Sydney, NSW, 2001, Australia

Telephone: **(02) 8281 7777**
Facsimile: **(02) 8281 7799**
E-mail: **seda@seda.nsw.gov.au**
Web site: **http://www.seda.nsw.gov.au**

APPENDIX 2
OCCUPATIONAL HEALTH AND SAFETY (OH&S)

SEDA had an OH&S manual and with an OH&S committee SEDA was able to ensure that all obligations under the Act were met.

APPENDIX 3
EQUAL EMPLOYMENT OPPORTUNITY (EEO)

SEDA is an equal opportunity employer and maintains a work environment free of discrimination. At the end of the reporting period 61% of SEDA staff were women, and consistently exceeded the NSW Government's benchmark for women in the workforce.

For 2003/2004, SEDA's EEO strategies included keeping abreast of developments and recommendations contained in the current Review of Merit Selection in the NSW Public Sector produced by the Office of the Director of Equal Opportunity in Public Employment (ODEOPE).

APPENDIX 4
INDUSTRIAL RELATIONS

There were no industrial disputes involving SEDA employees during the reporting period. There were no exceptional movements in wages, salaries or allowances

APPENDIX 5
CONSULTANTS ENGAGED

A consultant is a person or organization who is engaged by SEDA to provide expert advise on a temporary, fixed-term or ad-hoc basis for a specific task under a contract for service. There were no consultancies during the reporting year.

APPENDIX 6
GOVERNMENT ENERGY MANAGEMENT POLICY

In planning and selecting office space, SEDA has shown particular care in energy use using state-of-the-art lighting systems, best appliances in their size and class and by ensuring that features such as Energy Star are enabled on all office equipment. SEDA has maintained its five star rating under the Building Greenhouse Rating Scheme. An energy efficient lightning upgrade is planned for the tenancy for the Department of Energy Utilities and Sustainability (of which SEDA is now part) at 227 Elizabeth Street Sydney. The Department is purchasing 100% Green Power.

APPENDIX 7
RISK MANAGEMENT AND INSURANCE

During the reporting period SEDA had comprehensive insurance coverage through the NSW Treasury Managed Fund. This coverage included insurance for Workers' Compensation, motor vehicles, property, liability and miscellaneous risks. Risk assessment and management were built into SEDA's business process through its Program Development and Management Tracking system. This enabled each SEDA project to be rigidly scoped, developed and regularly monitored throughout implementation. At the project scoping and development phase, risk assessment was undertaken through an early and thorough identification of the major barriers and risks to the project.

APPENDIX 8
DISABILITY ACTION PLAN

The Authority had implemented a Disability Action Plan, which formed part of the induction process for all staff.

APPENDIX 9
MULTICULTURAL AFFAIRS

SEDA ensured the principles of the Ethnic Affairs Priority Statement were followed in all communications activities and initiatives, and aimed to take into account the cultural diversity of its staff in the Authority's working arrangements.

APPENDIX 10
OVERSEAS REPRESENTATION

No SEDA staff traveled overseas at public expense this financial year.

APPENDIX 11
EXECUTIVE DIRECTOR AND GOVERNANCE

At the end of the reporting period David Nemtzow was the Executive Director of SEDA. David joined the organisation from the US-based Alliance to Save Energy.

The other members of the Senior Management Team include Associate Director, Chris Dunstan BA, BEc MEc, Associate Director Ian Higgins BA, MBA, Chief Financial Officer, John Cahill, CPA, MCom, Susan Koreman BAp Sc (Mech Eng), Matthew Harnack BEng (Mech) (Hons) GradDip Mgt. Under the Sustainable Energy Development Act 1995 responsibility for the operation of SEDA rests with the Executive Director, who reports to the Minister for Energy. Responsibility for SEDA was transferred to Minister Sartor, during the reporting period.

Effective 30 June 2004, the NSW Parliament passed the Sustainable Energy Development Repeal Act 2004, No 64, which abolished SEDA. As of 1 July 2004 the former SEDA's functions were incorporated into the Department of Energy, Utilities and Sustainability.

The Executive Director oversaw the implementation of the Authority's legislative responsibilities and business strategies approved by the Minister and the day-to-day operations of the Authority. In respect of corporate governance, the Authority ensured that its operations were consistent with the SED Act, the Public Finance and Audit Act, the other relevant finance and employment related legislation. SEDA focused on responsible management and increased transparency and accountability to the NSW community.

APPENDIX 12
PAYMENT OF ACCOUNTS

All accounts received were paid within 30 days as required by Treasury directions. This has been SEDA's target in previous years.

APPENDIX 13
INVESTMENT PERFORMANCE

SEDA does offer concessional funding or financial assistance, as outlined in the financial reports.

APPENDIX 14
LAND DISPOSAL

SEDA does not own property.

APPENDIX 15
RESEARCH AND DEVELOPMENT

SEDA's Act precludes the undertaking of Research and Development.

APPENDIX 16
NSW GOVERNMENT ACTION PLAN FOR WOMEN

The NSW Government is committed to access, equity, rights and participation for women in the NSW Public Service. SEDA has reflected the spirit of this plan through its family friendly work policies and Human Resources Handbook.

APPENDIX 17
CREDIT CARD CERTIFICATION

SEDA had two credit cards; one in the control of the Executive Director and one in the control of the Office Manager. Credit Card usage is conducted in accordance with Premier's Memoranda and the Treasurer's Directions.

APPENDIX 18
PUBLICATIONS

The external cost to design and print this annual report totalled $9,860 ex GST. There were no other external costs involved with the production of this report. SEDA's Annual report is available from the home page of the DEUS website in PDF format. During 2003/2004, SEDA produced some publications including:

The SEDA Annual Report 2002-2003
Who Buys Solar Power, second edition

SEDA maintained the following websites;

http//www.seda.nsw.gov.au

http//www.energysmart.com.au

http//www.greenpower.com.au

http//www.energysmartallies.com

http//www.abgr.com.au

http//www.energysmarthome.com.au

APPENDIX 19
PRIVACY AND FREEDOM OF INFORMATION

Applications for access to SEDA's documents under the Freedom of Information Act should be made by post to:

The Director General
Department of Energy, Utilities and Sustainability,
PO Box 3889 Sydney NSW 2001

or in person at:

Level 17, 227 Elizabeth Street, Sydney

APPENDIX 20
ACCOUNTS PAID ON TIME WITHIN EACH QUARTER

Total Accounts	Total Amount Paid on Time		Total amount paid	
Quarter	Target %	Actual %	$	$
September	100%	100%	2,170,590	2,170,590
December	100%	100%	2,748,525	2,748,525
March	100%	100%	2,676,892	2,676,892
June	100%	100%	4,338,549	4,338,549

There were no problems affecting the prompt processing of payments during the year. There was no instance where interest was incurred due to the delay in making payment.

APPENDIX 21
ELECTRONIC SERVICE DELIVERY

SEDA's progress towards greater electronic service delivery was under an ongoing review and systems upgrades were completed to achieve best practice given the Authority's limited resources.

APPENDIX 22
WASTE MANAGEMENT

Environmentally responsible work practices were an integral part of SEDA's operation. SEDA recycled paper, toner cartridges, plastics and glass. Recycled paper has been purchased for use in all publications and office communications. All SEDA's printers were set to optimise paper reuse. SEDA's management of waste and recycling activities were aligned with the objectives of the NSW WRAPP.

APPENDIX 23
COMPLAINTS

SEDA's Energy Smart Information Centre records all public enquiries including complaints. On average one complaint was received at SEDA every two weeks – usually regarding rebate programs.

APPENDIX 24
ENERGY SMART ALLIES 1996 – 2004

12 Volt Shop

3 in one Building Assessment

A & AD Discount Insulation

AB & S Solar Industries

ABB Australia

Abbotly Technologies Pty Ltd

ACADS-BSG Pty Ltd

Accent Water & Energy Pty Ltd

Access UTS

Accurate Building Services & Energy Management (ABSEM) Pty Ltd

Accurate Detection Ply Ltd

ACT Home Energy Solutions

Addicoat Hogarth Wilson Pty Ltd

Advanced Recycling Australasia Pty Ltd

Advitech Pty Limited

Aeris Technologies

Aerodynamic Developments MFG Pty Ltd

Aerow Air Conditioning Pty Ltd

AGL Energy Services

AHA Energy Management

Air Barrier Technologies

Air Solutions International Pty Ltd

AIR-CELL Insulation

Air-change Pty Ltd

Air-conditioning Air Purification Technologies

Aldan International Pty Ltd

Alexander + Dwyer Group,

All Natural Energy
All Protection Tinting Pty Ltd
Allen Fluorescent Lighting Pty Ltd
Allen Jack and Cottier Architects
Allied Solar
Alstom Australia
Altrum Pty Ltd
AMM Technologies
APV Australia Pty Ltd
Aqua Clarus Pty Ltd
Aquacare NZ Ltd
Aqualoc Tap Valves Pty Ltd
Architects Edmiston Jones
Architecture Alliance Travis McEwen Group
Asset Technologies Pacific
Austech Instruments Pty Ltd
Austrade
Australian Baldor Pty Ltd
Australian Hot Water & Stove Service Head Office
Australian Industrial Energy Service
Australian Procon. S.
Avail Lighting Management
Axiom Data Logging Systems Pty Ltd
B.D.S. Constructions Pty Ltd
Barry W Holding & Associates Pty Ltd
Bass Electrical Pty Ltd
Bassett Consulting Engineers
BB Water Pty Ltd
BCS Engineering Design Consultants
Beasley Industries
Benkeng Pty Ltd
Big Switch Projects Pty Ltd
Bio-Building Design Pty Ltd
Biomass Energy Services & Technology Pty Ltd
Bligh Voller Nield
BP Solar Australia Pty Ltd
Brightstar Environmental
Building Automation
Building Controls Management Pty Ltd
Building Designers Association of NSW
Buildserv Skylights & Ventilation
Capacitor Technologies
cap-XX Pty Ltd
Carrier Air Conditioning Pty Ltd
CBD Energy
Centrex Technologies Pty Ltd
Centron Tough Guard Pty Ltd
Champion Compressors Ltd
Chisel Consulting (Australia)
Christoffel Pty Ltd
Collins Vergnaud Pty Ltd
Comfy House Design
Complete Technology Integrations
Connell Mott MacDonald
Consteam (Australia) Asia Pacific Pty Ltd
Control Tech Pty Ltd
Cool or Cosy Insulation
Country Energy
CS Architects & Property Services
Custom Solar
Cutler-Hammer
Cygnus Renewable Energy
Dadanco Pty Ltd
Daikin Australia Pty Limited
Danfoss (Australia) Pty Ltd
Danshell Pty Ltd
DASCEM Holdings Pty Limited
David J Anderson Electrical
Deanos Pty Ltd
Denis Cooke & Associates Pty Ltd
Department of Public Works and Services Energy Services
Donnelley Simpson Cleary Consulting Engineers Pty Ltd
DTB Architects Pty Ltd
Dynalite
Dynamic Synergies Int. Pty Ltd
E.L.C.A. Environment Lighting Co. Aust.
Eastaway Air Conditioning Pty Ltd
Easy Energy
ecco2sol Global Energy Solutions
Eco Air Pty Ltd
Eco Habitats
Eco Real Estate
E-Co Shower
Eco$ave
Eco-Block Australia
EcoCell Insulation Systems
Ecological Architects Association Inc.
Ecological Homes
Ecopower Pty Ltd
Ecowise Services Ltd
EDI Energy Systems
Edmonds Products Australia
EEP Management Pty Ltd
Efficient Energy Systems
EJE Architecture
Electronic System Integrators Pty Ltd
Electroserv Pty Ltd
elero Australia
Elite Pool Covers NSW
Elms & George Consulting Engineers
EMET Consultants Pty Ltd
Enercon Engineering Pty Ltd
Energetics
Energex Ltd
Energy and Water Solutions Pty Ltd
Energy Auditors Australia
Energy Conservation Systems Pty Ltd
Energy Corporate (Australia) Pty Ltd
Energy Developments
Energy Dynamics International
Energy Engineering of Aust. Pty Ltd
Energy Partners
Energy Resources Group Pty Ltd
Energy Strategies Pty Ltd
Energy Visions Pty Ltd
Energy Wizard
EnergyAustralia - Sustainable Energy Group
Energyintelligence

Enersave Environmental Services Pty. Ltd.
EnFact Pty Ltd
Enginuity Energy Services Pty Ltd
Enproc Pty Ltd
Envirohome
Envirolite Pty Ltd
Environmental Australia Pty Ltd
Environmental Computer Services
Environmental Defender's Office Ltd
Environmental Manager Magazine
Environmental Resources Management Australia Pty Ltd
Envirotecture Projects Pty Ltd
EP&T Pty Ltd
Erbas and Associates Pty Ltd
Ergon Energy
Eris McCarthy Electrical
ERM Mitchell McCotter
ETM Pacific Pty Ltd
Farmer Cortese Pty Ltd
Fastron Technologies
Ferrier Hodgson Electricity Pty Ltd
Fibre Light Systems
Fieldforce Services Pty Ltd
Fitch Fuel Catalyst Australia Pty Ltd
Foreshore Electrics
Forster Engineering Services Pty Ltd
Four Seasons Solutions Pty Ltd
Futuretech Electronics Pty. Ltd.
G E Energy (Australia) Pty Ltd
Gareth Cole & Associates Architects Pty Ltd
Gatam Pty Ltd
Gavan Reilly Architect
GE Lighting Australia Ltd
Geo Thermo Dynamics
George Floth Pty Ltd
GHD
Gillis Architects
Global Hotel Technology
Goldway Energy Australia Pty Ltd
Grebert & Sussmilch Pty Ltd
Green Energy Australia
Green Energy Consultants
Green Grid Power
Greenwatt Pty Limited
GridX Power Pty Ltd
Grosvenor Engineering Group
Habitat Extensions
Halliburton KBR Pty Ltd
Haron Robson
Harrington Technologies Limited
Harris Energy Solutions
HASSELL Pty Ltd
Heraeus Amba Australia Pty. Ltd.
Holec Pty Ltd
Holistic Renewable Energy
Home Energy Management Consultancy
Homeplan Project Design Resources
Honeywell Australia Ltd
Hooker Cockram Ltd
HPM Industries
Hyder Consulting Australia
HY-SAVE PTY LTD
ILUM-A-LITE PTY LTD
Independent Engineering Services Pty Ltd
Industrial Pyrometers
Institute for Sustainable Futures
Integral Energy Australia
Integrated Energy Services Pty Ltd
Integrate-Oz
Interium Pty Ltd
Intermoco Solutions Pty Ltd
Invensys Building Systems Australia
Inventions Marketing International Pty Ltd
Issey Sunshade Systems
James Doerfler Architects
JEM Australia Pty Ltd
Jim Campbell & Associates
K.E. Brown Electrical Switchboards
Kelstrom
Key Services Pty Ltd
Kinsley & Associates
Kone Elevators Pty Ltd
Kyocera Solar Pty Ltd
Landfill Management Services Pty Ltd
Layson Pty Ltd
Lemec Environmental Services Pty. Ltd
Lennox Australia Pty Ltd
Light Brokers
Lighting Energy Controllers (Aust) Pty Ltd
Lightning Bult Electrical
Limelight International Pty Ltd
Lincolne Scott Australia Pty Ltd
Lorient Australia
Low Energy Living
Low Energy Supplies & Services Pty Ltd (LESS)
M.A.D Electrical Services Pty Ltd
M.C. Nicholls Pty Ltd
Mackenzie Deane Pty Ltd
Magnetite Insulating Window Systems
Mason Architects
Matthew Dodson
Maxilight Industries(WA) Pty Ltd
Meinhardt Pty Ltd
Meo Oil Australia
Michael Davies Associates
Micro Air Pty Ltd
Moodie Innovative Solutions
Moonlighting International Pty Ltd
Morriss Engineering Solutions Pty Ltd
MPL Group Pty Ltd
Mr Lamps Pty Ltd
National Project Consultants Pty Ltd
Natural Energy Concepts
NCON Corporation Pty Ltd
Nelson Lamps (Aust) Pty Ltd
NESCO Services (NSW) Pty Ltd
Norman Disney & Young Management Pty Ltd
Northrop Building Services
NORWEST AIR
Offix Commercial Facilities Pty Ltd
On Time Insulation Pty Ltd

Optimal Consulting Engineers Pty Ltd
Origin Energy
Palmer Enecon Services Pty Ltd
Partridge Partners Pty Ltd
Paynter Dixon Constructions
PE Consulting
Peter Carters and Associates Pty Ltd
Peter O'Donnell & Associates Pty Ltd
Philips Lighting
Pierlite Pty Ltd
Pitline Water and Energy Management Pty Ltd
Planet Ark Environmental Foundation
Platypus Power
Power Solutions Pty Ltd
Power Visions Pty Ltd
Powertek Energy
Pratt Miniter Consulting Pty Ltd
Priestley Electrical
ProAnd Associates Australia Pty Ltd
Professional Solar Designs Australia
Prosolar Pty Ltd
Punchline Energy
PV Solar Energy Pty Ltd
Pylon Chemicals Pty Ltd
Q Engineering Services Pty Ltd
Q.I.S. Energy Conservation Systems Pty Ltd
Quadplex Electrical and Data Pty Ltd
Quantum Energy Pty Ltd
Quiggin Cook & Associates
Quick'n Tuff Systems P/L
Rainbow Power Company
Raven Products Pty Ltd
Renewable Energy Centre, Brisbane Institute of TAFE
Renpal Solar
Resolve Facilities Management
Resource Management Solutions
RF Industries Pty. Ltd.
RIC Electrics Pty Ltd
Richard Earngey & Associates Pty Ltd
Richard Heggie Associates
Roads and Traffic Authority
Roger Johnstone & Associates
Rotary Heat Exchangers Pty Ltd
Rotex Australia Pty Ltd
S.T.S Services Pty Ltd
Sanctum Design Consultants P/L
Selectricity Pty Ltd
Self Sufficiency Supplies Pty Ltd
Siemens Building Technologies
Simply Genuine
Sinclair Knight Merz
six b design
SJ Electric (NSW) Pty Ltd
Skydome Skylight Systems
Skyline Energy
SLS Technology Pty Ltd
Smartscape
SmartWORLD Corporation Pty Ltd
SMEC Australia Pty Ltd
Solahart Industries Pty Ltd
Solar Energy Systems Ltd
Solar Smart
Solar Solutions Design & Drafting
Solarch Group
Solarcom (Aust) Pty Ltd
Solar-Mesh (Australian Distribution) Pty Ltd
Southern Facilities Management Pty Ltd
Spirax Sarco Pty Ltd
Stephen Grubits and Associates Pty Ltd
Stephenson & Turner International Pty Ltd
Steven Beletich Associates
Stowe Australia Pty Limited
Sunscreen Window Tinting
Super Therm Ohkura Australia Pty Ltd
Sustainability Centre Pty Ltd
Sustainable Energy Products Australia Pty Ltd
Sustainable Solutions Pty Ltd
SWEP Heat Exchangers Pty Ltd
SynArchi Group
T.C. Technologies Pty Ltd
T.S.F. Engineering Pty Ltd
Tarong Energy Corporation Ltd
TECO Australia Pty Ltd
TEQMan Pty Ltd
The National Hydrogen Association of Australia
The Construction Bureau
The Heat Management Company
The House Energy Rating company of Australia
The Lighting Group
The Painting People
Thermohunter Pty Ltd
Thermosound
Timar Partnership Pty Ltd
Timbershades Shutters & Blinds
Total Electrical Connection Pty Ltd
Total Energy Solutions
Track Electrics Pty Ltd
TRANE Australia incorporating Atlas Building Services Pty Ltd
Triple M Mechanical Services Pty Ltd
Ultralite International Pty. Ltd.
Unisearch-Consulting & Research
Unitech Research Pty Ltd
VELUX (Australia) Pty Ltd
Viscon Systems
W. Guthrie Pty Ltd
Water Conservation Services Australia
Water Management Systems Pty Ltd
Waterman AHW
Windpower Australia Pty Ltd
Wireless Monitors Australia Pty Ltd
Wolf Meffert & Associates
Wren Industries Pty Ltd
Wybaleena Engineering Services
Yalwarne Electrical Contractors
Yesterday-Today-Tomorrow, Strawbale Construction
Yowie Enterprises Pty Ltd
ZEGO Pty Limited
Zener Electric Pty Ltd
Zenergy
Zumtobel Staff

APPENDIX 25
ENERGY SMART BUSINESSES 1996 – 2004

AGL
AJ Bush & Sons
Alsco Linen Service
Amcor Limited
ANA Hotel Sydney
Angus & Coote
Arena Management Pty Limited
Arnott's Ltd
AstraZeneca
Austral Bricks
Australian National Maritime Museum
Australian Olympic Committee
B E Campbell Pty Ltd
Bankstown City Council
Bankstown District Sports Club Ltd
Batson Sand & Gravel Pty Ltd
Big W Discount Stores
Blackmores Ltd
Blayney Shire Council
BMW Sydney
BOC Gases, Australia
Bomaderry Bowling Club Ltd
Boral Limited*
BP Amoco Australia
BP Solar Australia
Calvary Hospital Wagga Wagga Inc
Canon Australia Pty Limited
Canterbury Bankstown League Club
Canterbury City Council
Cargill Beef Australia
Castle Hill RSL Club
Cement Australia
Cerebos Foods
Cessnock Council
Charles Sturt University
City of Sydney
Club Marconi
Club Phoenix Ltd
Coal And Allied Operations
Coffs Harbour Ex-Services Club
Colonial First State Property
Commonwealth Bank of Australia
Compaq
Competitive Foods Australia Ltd
Continental Carbon Australia
Cruising Yacht Club of
Australia Limited
CSR
Darling Harbour Hotels
Darrell Lea Chocolate Shops Pty Ltd
David Jones Ltd
Dubbo RSL Aged Care Association
Dubbo RSL Memorial Club
DuPont (Australia) Limited
East Maitland Bowling Club
Eastern Suburbs Leagues
Club Limited
Ensign Services (Aust) Pty Ltd
Epping RSL (Sub Branch) &
Community Club
Epson Australia Pty Limited
Evans Head Bowling Club Ltd.
Fairfield City Council
Fidax Foundary Pty Ltd
FJ Walker
Girotto Precast Pty Ltd
Glaxo SmithKline
Gosford Council
Grace Hotel*
Grosvenor Place Pty Ltd
Harvey Norman
Henderson & Horning
Hilton Sydney
Hilton Sydney Airport
HJ Heinz Company Australia Pty Ltd
Honeywell Ltd
Hungry Jack's, Bankstown
Hunter Douglas Limited
Hunter Water Corporation
IKEA Home Furnishings
ING Office Trust
ING Retail Property Fund Australia
Inghams Enterprises Pty Limited
Insurance Australia Group
Intercast & Forge
Interface Australia Pty Ltd
Investa Property Group
John Fairfax Holdings Ltd
Lane Cove Council
Leichhardt Municipal Council
Luxfer Gas Cylinders
Manildra Group
Manly Council
Maroubra Seals Sports &
Community Club
Marrickville Council
Mater Hospital, Newcastle
Merck Sharp & Dohme (Australia)
Pty Ltd
Mercure Hotel Sydney
Merrylands RSL Club
Metalcorp Recyclers Pty Limited
Milton District Meats
Mirvac
MM Kembla Products
Moama Bowling Club Limited
Mount Pritchard & District
Community Club Ltd
National Can Industries (NCI)
Nelson Bay RSL Memorial Club
Nestle Purina
Newcastle City Counci
North Sydney Council
Northern Co-operative Meat Co Ltd
NSW Leagues Club
NSW Sugar Milling Co-operative Ltd
NSW Teachers Federation
Onesteel, Oil and Gas Pipe
Oporto Portugese Style Chicken

Optus
OSI International Foods
P&O Australia
Panasonic Australia Pty Limited
Panthers Entertainment Group
Penrith Rugby League Club
Pfizer
Pinpoint Pty Limited
Qantas Airways Ltd
Randwick Labor Club
Raymond Family Partnership
Reading Entertainment Pty Ltd
Real Foods Pty Ltd
Rema Industries and Services Pty Ltd
Renaissance Hotel
Rheem Australia Pty Ltd
Rich River Golf Club Resort
Richmond Valley Council
Riverina East ROC
Riverina Water County Council
Riverina Wool Combing Pty Ltd
Rushcutters Harbourside Hotel
Sanitarium Health Food Company
Sara Lee Bakery Australia Pty Ltd
SBS Corporation
Simplot Australia Pty Ltd
Sisters of the Good Samaritan
Snack Brands Australia
Snowy Hydro Limited
Sony Australia Ltd
Sony Music Entertainment (Australia) Ltd
South Sydney City Council
South Sydney Junior Rugby League Club
South Tweed Bowls Club Ltd
Specialist Crushing & Screening Services
Stamford Hotels and Resorts
Star City Pty Ltd
Sutherland Shire Council
Sydney Adventist Hospital
Sydney Airports Corporation Ltd
Sydney Building Information Centre
Sydney Fish Market
Telstra
TNT Australia Pty Ltd
Toyota Motor Corporation
Transmetro Corporation Limited
Tweed Heads Bowls Club
Twin Towns Services Club
University of New England
University of Newcastle
University of Wollongong
Vinidex Pty Ltd
Wagga Wagga City Council
Waverley Council
Wentworthville Leagues Club Ltd
Western Suburbs (Newcastle) Leagues Club
Wingecarribee Shire Council
Wollongong City Council
Woonona Bulli RSL Memorial Club
Wyeth Australia
Wyong Shire Council
YHA NSW Inc.
Zoological Parks Board of NSW

APPENDIX 26
ENERGY SMART COUNCILS 1996 – 2004

Ballina Shire Council
Bankstown City Council
Baulkham Hills Shire Council
Bellingen Shire Council
Botany Bay City Council
Byron Shire Council
Camden Council
Campbelltown City Council
Canterbury City Council
Cessnock City Council
Coffs Harbour City Council
Cowra Shire Council
Dungog Shire Council
Fairfield City Council
Gosford City Council
Grafton City Council
Greater Taree City Council
Hastings Council
Hawkesbury City Council
Hornsby Council
Hurstville City Council
Kempsey Shire Council
Kiama Municipal Council
Kogarah Municipal Council
Lake Macquarie City Council
Leichhardt Municipal Council
Lismore City Council
Liverpool City Council
Maclean Shire Council
Maitland City Council
Manly Council
Marrickville Council
Mosman Municipal Council
Newcastle City Council
North Sydney Council
Parramatta City Council
Penrith City Council
Pittwater Council
Randwick City Council
Ryde City Council
Scone Shire Council
Shellharbour City Council
South Sydney City Council
Strathfield Municipal Council
Sutherland Shire Council
Tweed Shire Council
Wagga Wagga City Council
Warringah Council
Waverley Council
Willhougby Council
Wingecarribee Shire Council
Wollondilly Shire Council
Wollongong City Council
Wyong Shire Council

APPENDIX 27
AUSTRALIAN BUILDING GREENHOUSE RATING SCHEME (ABGR) – COMMERCIAL COMPANIES

Accenture
Adelaide Bank
AGL
Allen Allen Hemsley
AMP
ANZ Properties
Architectus
Astra Zeneca
Baulderstone Hornibrook
Blake Dawson Waldron
Boral
Bovis Lend Lease
Burger King
C.B Richard Ellis (Victoria) Pty Ltd
Capital Airport Group
CGI Information Systems
Charter Hall
Citigroup
Colliers International
Colonial First State Property
Commonwealth Managed Investments Ltd
Compaq
Cowley Hearne Lawyers
DesignInc Melbourne Pty Ltd
Deutsche Asset Management
East Asia Property Group
Energetics
Energy and Water Solutions
Energy Australia
Energy Conservation Systems Pty Ltd
Engineers Australia
Environ
Ernst & Young
Erolcene Pty Ltd & Claijade
Essington Group
Fairfax
Freehills
General Property Trust
Great Southern Energy
Grocon
Guardian Trust Aust Ltd
Henderson & Horning
Hollywood Pty Ltd
IBM
Industry Superannuation Property Trust
Investa Property Group
James Fielding Property Services
Jones Lang LaSalle
Knight Frank
KPMG
Leighton Properties
Lincolne Scott
Macquarie Asset Services
Macquarie Office Trust
Mirvac Limited
Multiplex
Ove Arup & Partners
Parker Securities
Perth Diocesan Trust
PricewaterhouseCoopers
Property Council of Australia
Qantas
Quiggin Cook & Associates
RAMS
Resolve FM
Rice Daubney
Rider Hunt
Samardi Group
Savings & Loans Credit Union (SA)
Stockland Property Trust
Sutherland Shire Council
Tenix
Trust Company of Australia
Tullett & Tokyo Liberty
Zurich Financial Services

APPENDIX 28
AUSTRALIAN BUILDING GREENHOUSE RATING SCHEME (ABGR) – GOVERNMENT DEPARTMENTS

Australian Inland
City of Gosnells
City of Melbourne
City of Melville
Commonwealth Crown Public Prosecutor
Department of Defence
Hastings Council
Hunter Water
Newcastle City Council
North Sydney City Council
NSW Crown Property Portfolio
NSW Department of Energy, Utilties and Sustainability
NSW Department of Health
NSW Department of Infrastructure, Planning and Natural Resources
NSW Heritage Office
NSW Sustainable Energy Development Authority
NSW Waterways Authority
Parramatta City Council
QLD Department of Works
SA Land Management Corporation
South Australian Government
Sustainable Energy Authority Victoria
VIC Department of Human Services
VIC Department of Natural Resources
VIC Department of Treasury and Finance
WA Department of Housing & Works
WA Department of Land Administration
WA Office of Energy
WA Water Corporation

APPENDIX 29
SOLAR SCHOOLS 1996 – 2004

Ambarvale High School
Bankstown Public School
Beaumont Road Public School
Bellingen High School
Belmont High School
Berala Public School
Bexley North Public School
Blacktown West Public School
Blaxland East Public School
Botany Bay Environmental Education Centre
Bourke Street Public School
Bowral Public School
Bribbaree Public School
Bronte Public School
Brungle Public School
Buninyong Public School
Campbelltown TAFE
Cheltenham GHS
Cherrybrook Technology High School
Cobar Public School
Cooerwull Public School
Cooma Public School
Dorrigo High School
Durrumbul Public School
Edward Public School
Elands Public School
Ellison Public School
Excelsior Public School
Forestville Public School
Glen Innes Public School
Gunnedah South Public School
Gwandalan Public School
Hanwood Public School
Harbord Public School
Hawkesbury Independent School
Hay Public School
Hayes Park Public School
Helensburgh Public School
Hinchinbrook Public School
Illaroo Road Public School
Lansdowne Public School
Londonderry Public School
Mawarra Public School
Menai High School
Metella Road Public School
Millbank Public School
Model Farms High School
Mount Annan Public School
Mount George Public School
Naradhan Public School
Narrabeen Lakes Public School
Narromine High School
Nimbin Central School
Northmead High School
Nulkaba Public School
Orange Grove Public School
Orange Public School
Otford Public School
Parramatta Public School
Penrith High School
Penshurst Girls High School
Riverina Environmental Education Centre
Robertson Public School
Rocky River Public School
Seven Hills Nth Public School
Shoalhaven High School
Smithfield Public School
St Helens Park Public School
St Ives Primary School
Tanja Public School
Tuggerah Lakes Secondary College, Berkeley Vale Campus
Ulladulla High School
Walcha Central School
Wangi Wangi Public School
Warrawong Public School
Warrimoo Public School
Wentworth Public School
Wollondilly Public School
Wyrallah Road Public School

APPENDIX 30
ENERGY SUPPLY PROJECTS 1996 – 2004

Project	Counterparty
Accreditation of Assessors for the House Energy Rating Scheme	Unisearch Ltd
Barraba Solar	Brett Bidwell and Laurence Godfrey
Biodiesel Technology Development and Production Plant	Australian Biodiesel Consultancy
Biomass Fuel Pellets	Biomass Fuel Pty Ltd
Biosel Biodiesel	Biosel Pty Ltd
Blayney Wind Farm	Pacific Power
Broadwater Sugar Mill Cogeneration	NSW Sugar Milling Co-operative Ltd

Cane Trash Bulk Collection System	NSW Sugar Milling Co-operative Ltd
Cane Trash Bulk Transport System	NSW Sugar Milling Co-operative Ltd
Ceramic Burner and Stirling Engine Project	Biomass Energy Services and Technology Pty Ltd
Combined Heat and Power Micro Cogeneration Project	GES Technologies/Cogenic Pty Ltd
Combined Solar Systems Domestic Trial	Australian National University
Commercialisation of Carburetted Gas Turbine Technology	EDL Technologies Pty Ltd
Commercialisation of the Australian PV Solar Tile	PV Solar Energy Pty Ltd
Cronulla Sewage Treatment Plant Biogas Cogeneration System	Sydney Water Corporation
Dubbo PV Project	Advance Energy
Dungog Shire Council Energy Smart Homes Policy	Dungog Shire Council
Food Biomass to Green Energy	EarthPower Technologies Sydney Pty Ltd
Fuel Cell Cogeneration at Australian Technology Park	Australian Technology Park Sydney Ltd
Great Southern Energy PV System	Great Southern Energy
Green Point Landfill Gas Project	AGL Energy Services Ltd
Hampton Wind Park	Hampton Wind Park Company
Kincumber Cogeneration Project	AGL Energy Services Ltd
Landfill Gas Utilisation Project (Shoalhaven and Wagga Wagga)	AGL Energy Sales & Marketing Ltd
Macquarie University Cogeneration Facility	Macquarie University
Multi Use Arena PV Power Station	EnergyAustralia
Narrabri Cotton Waste Gasification	Yalinka Holdings Pty Ltd
Newington Olympic Village	Mirvac/Lend lease
North Sydney Olympic Pool	North Sydney Council
Nowra Green Energy Facility	Energy Equipment Pty Ltd
Orange City Beef Biogas	Yolarna Pty Ltd
Pindari Hydro	Power Facilities Pty Ltd
Renewable Energy Initiatives for the CSIRO Energy Centre	CSIRO
Renewable Energy Plantations	BioEnergy Australia Ltd
Rethmann Fuel Substitution Project	Rethmann Australia Environmental Pty Ltd
Rice By-product Gasification Project	Ricegrowers' Co-operative Ltd
Rotary Kiln Mine Site Demonstration Plant	CSIRO and Liquatech Turbine Co Pty Ltd
Shellharbour PV	Shellharbour Workers Club
Singleton PV Power Station	EnergyAustralia
Solar Kogarah Project	Kogarah Council
Split Rock Hydro	FES (NSW) Pty Ltd
Street Lighting Energy Efficiency Upgrades	Southern Sydney Regional Org of Councils
Sutherland Leisure Centre Cogeneration Project	Sutherland Shire Council
The Drop Hydro-electric Project	Pacific Hydro Ltd
Toonumbar Mini Hydro	Rous Water
Ulladulla Landfill Gas Reuse	Shoalhaven City Council
University of Newcastle Microturbine Project	University of Newcastle

University of NSW PV	University of New South Wales
Varispeed Wind Turbine Generator Development	Varispeed Electric Motors Pty Ltd
Regional Micro-Digester Project	Effluence Pty Ltd
Whytes Gully Waste to Energy Project	EDL Operations (Whytes Gully) Pty Ltd
Wollondilly Leisure Centre	Wollondilly Shire Council
Wyangala Hydro	Hydro Power Pty Ltd
Lord Howe Island PV	Lord Howe Island Board
SEDA PV	Sustainable Energy Development Authority/Energy Australia

APPENDIX 31
FEASIBILITY STUDIES UNDERTAKEN 1996 – 2004

BIOENERGY

Study Name	Partners
Wood Weeds Study	DS&RD, DIPNR, Country Energy
Eco Carbon Study	DS&RD, Gunnedah Council, Eco Carbon
Bioenergy Australia Ltd.	Bioenergy Australia Ltd.
Trials Using Hardwood Feedstock for Fuel Pellet Production in NSW	Pellet Heaters Australia Pty Ltd

COGENERATION FEASIBILITY STUDIES

Cogeneration Development Program Partners Since Inception
AGL
Country Energy
Australian Pipeline Trust
Energex

Cogeneration Study Recipients	Location
AJ Bush	Riverstone rendering plant
Cargill	Wagga Wagga abattoir
Central West Linen Service	Orange
Continental Carbon	Kurnell carbon plant
Delta EMD	Newcastle Manganese Dioxide plant
Dubbo Hospital	Dubbo
Fairfax	Chullora printing plant
Gosford City Council	Kincumber Sewage Treatment Plant
Griffith Base Hospital	Griffith
Grosvenor Place Pty Ltd	Grosvenor Place office building, Sydney
Landcom	Victoria Park residential apartments, Zetland

Merck Sharp and Dohme	Granville pharmaceuticals plant
Mudgee Abattoir	Mudgee
Newcastle University	Newcastle
Olympic Park Authority	Aquatic Centre, Olympic Park
Palos Verdes	mustard plant, Cowra
Penrith Panthers	Penrith
Powerhouse Museum	Ultimo
Primo Smallgoods	Chullora meat processing plant
Riverina Wool Combing	Wagga Wagga plant
Royal North Shore Hospital	St. Leonards
Ryde Hospital	Ryde
Sanitarium	Cooranbong food processing plant
Simplot	Bathurst
Star City Casino	Pyrmont
Sydney Airport	Mascot
Ulladulla Council	Ulladulla acquatic centre
Westmead Hospital	Westmead

WASTE COAL MINE GAS FEASIBILITY STUDIES

Partner	Study Location
Metropolitan Colliery / Helensburgh Coal	Metropolitan Colliery, Helensburgh
Xstrata Coal	United Colliery, near Singleton
Xstrata Coal	Bulga Colliery, near Singleton
Centennial Coal	Mandalong Colliery, Morisset

APPENDIX 32
GREEN POWER PRODUCTS 1996 – 2004

Retailer	Product
ActewAGL	Green Choice
AGL	Green Energy
	Clean Green
AusPower	Auspower Vardant
Australian Inland	Australian Inland Green Energy
Country Energy	Country Green
Energex	Earth's Choice
Energy Australia	PureEnergy
Ergon Energy	Clean Energy from Ergon Energy
	Clean Energy Plus Option

Retailer	Product
Integral Energy	Hampton Wind Park
	Wyuna Water
	Business Green
Origin Energy	GreenEarth - Business Option
	GreenEarth - SME Option
	GreenEarth - Residential Option
	EcoSaver - Residential Option
	EcoSaver - Business Option
TXU	Enviro Energy
	Green Energy
Western Power	Natural Power

APPENDIX 33
ENERGY STAR PROGRAM PARTNERS 1996 – 2004

OFFICE EQUIPMENT

Manufacturing Partners

ACER Computer
Apple Computer
Brother International
Canon Australia
Compaq Computer Australia
EPSON
Fuji Xerox
Hewlett-Packard
Hitachi
IBM
Ipex ITG
Kyocera Mita Electronics Australia
Lanier
Lexmark
LG Electronics
Minolta
NEC
Oki
Panasonic
Philips
RICOH Australia
Samsung Electronics
Sharp
Sony
Toshiba
Wyse Technology

Retail Partners

Harvey Norman

HOME ELECTRONICS

Manufacturing Partners

Grundig
LG Electronics
NEC
Panasonic
Philips
Pioneer
Samsung Electronics
Sharp
Sony
TEAC

Retail Partners

RetraVision

APPENDIX 34
LIVE ENERGY SMART PRODUCT PARTNERS 1996 – 2004

Beasley Industries
Edwards Hot Water
Rheem / Solahart
Insulco
Phillips Lighting
Whirlpool
Dux Hot Water
Quantum Energy Systems
Rinnai
Insulation Solutions
Interbath Showerheads

GLOSSARY

CAPACITY UNITS

1kilowatt (kW)	= 1,000 watts
1 megawatt (MW)	= 1,000 kW
1 gigawatt (GW)	= 1,000 MW

ELECTRICITY CONSUMPTION UNITS

kWh	kilowatt-hour
MWh	megawatt-hour
GWh	gigawatt-hour

COMMON ABBREVIATIONS

REC	Renewable Energy Certificate
MRET	Mandatory Renewable Energy Target
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide equivalent
LTT	lifetime tonnes (of CO_2 emitted during a project's life)
Energy Supply LTT	Hydro Electricity.....30 years
	Bioenergy.....15 years
	Solar PV.....20 years
	Solar Thermal.....7 years
	Wind Energy.....20 years
Residential LTT	Building Envelope.....40 years
	Energy Smart Hot Water system.....10 years
	Energy Star Home Electronics.....3 years
Business LTT	Energy Smart Business (3-15 yrs).....10 years average
	Energy Smart Government (3-15 yrs).....10 years average
	Cogeneration.....20 years
	Energy Star Office Equipment.....3 years

SEDA PERSONNEL AT 30 JUNE 2004

Emma Bailey
Lucas Boardman
Lynette Bourne
Andrew Burnard
Jeffery Bye
John Cahill
Aslyn Chand
Matthew Clark
Madeline Cowley
Paul Cowley
Chris Dunstan
Luc Farago
Emily Fewster
Emily Firth
Mark Fogarty
Joyce Fu
Dagmar Gramatzki
Steve Green
Angela Greenwood
Colette Grigg
Matthew Harnack
Ian Higgins
Amy Hogan
Nicole Holder
Graeme Jessup
Amy Kean
Susan Koreman
Julia Lee
Gaye Lonard
Ione McLean
Max Mosher
Jania Nouri
Mary O'Neill
Alberta O'Keeffe
Stephen Pritchard
Alison Purnell
Danielle Quinn
Nicola Saltman
Rebecca Short
Carolyn Simmons
Felicity Stening
Laura Taylor
Cecilia Tietze
Peter Tomkins
Sonya Williams

SEDA
NSW Government

October 2004 ISSN 1327-6735.