

THIRTY/TEN

Western Australian Sustainable
Energy Association (WA SEA) Inc
Vol.3 No.1 April 2004

TARGETING 30% SUSTAINABLE ENERGY BY 2010

30% 2010



Greens Deliver Next Coal Fired Power Station

(SEE PAGE 4)



Enjoy the feeling of
sun against your skin.

**And save more than 70% on
your hot water heating costs***

To celebrate our 50 years Solahart has created the Freeheat. New innovations in collector panel and tank design make the Freeheat the most efficient in the Solahart range of hot water heaters.

The Freeheat will save you more than 70%* on your hot water heating bills over time, which is a substantial saving when you consider the fact that hot water heating accounts for up to 40% of domestic dwelling's energy use.

And because our hot water heaters are environmentally friendly, you may be eligible for substantial savings with REC's (renewable energy certificates) and state government rebates which can save you thousands*.

So to find out more about how the Freeheat or one of the many Solahart models can save you, call Solahart on 1300 669 876.

Solahart
hot water free from the sun

www.solahart.com.au
*Conditions apply

carbon dioxide capture + storage CONFERENCE

*Bringing industry, government and community representatives
together with scientific experts to examine the role
of geosequestration in Western Australia's energy future*

KEY SPEAKERS Hugh Outhred University of NSW | Francis Logan MLA
Dr Peter Cook CO₂CRC | Dr Frances MacGuire Greenpeace | Dr Will Shenton CSIRO
Chris Tallentire Conservation Council of WA | John Torkington and Roger Bartlett Chevron-Tesaco
MC Johanna Gastevich Executive Officer, Western Australian Sustainable Energy Association Inc.

WHO SHOULD ATTEND?

Government Policy Advisors | Petroleum, Oil and Gas Industry Representatives
Sustainable Energy Industry Representatives | Electricity Generators | Industry Consultants
Energy, Engineering & Science Staff and Students | Members and Affiliates of CCWA
Community Members Interested in Climate Change and Energy Issues

FRIDAY 23rd APRIL 2004

8.30 am - 3.00 pm | Duxton Hotel, Duxton Room 2, 1 St George's Tce Perth

COST : \$165 per person or \$55 per student/community group/unwaged (inc. GST)

For more information or to register please fill in and return form, **PHONE** 08 9420 7266,
EMAIL ccs@environmenthouse.org.au, or **VISIT** www.conservatorwa.asn.au

THE CARBON DIOXIDE CAPTURE + STORAGE CONFERENCE IS SPONSORED BY:



registration

COBTS (Please indicate number of people attending)

- @ \$165 per person (inc. GST)
 @ \$55 per student/community group/unwaged (inc. GST)

Your registration fee includes any conference publications,
morning and afternoon tea, and lunch

CONTACT DETAILS

Name/s _____

Workplace/Community Group _____

Address _____

Postcode _____

Telephone _____

Email _____

PAYMENT

I enclose my Cheque/Money Order for: \$ _____
(please make payable to Conservation Council of WA)

or please debit the amount of: \$ _____

to my Bankcard Mastercard Visa Card

Name on Card _____

Expiry Date: / / Signed _____

Please **MAIL** to Conservation Council of WA: 2 Duffin Street
West Perth WA 6005 or **FAX** to 08 9420 7275
For more information **PHONE** 08 9420 7266
EMAIL ccs@environmenthouse.org.au
or **VISIT** www.conservatorwa.asn.au

OFFICE USE ONLY

Ref: _____ Date Received: / /

Completed By: _____

'On behalf of the people of Western Australia, the Association will vigorously promote the development and adoption of sustainable energy so that by the end of this decade, 30% of the State's fossil fuel use is displaced by sustainable energy practices.'



Chair's Report

The year started on a high note for sustainable energy with positive news from the national and international scene predicting a bright path for the future of renewables in Western Australia.

This positive climate is all the more welcome as I know many of our members will be disappointed that Western Australia's energy sector has still not seen reforms which would deliver better outcomes for our industry and environment. Electricity reform and the implications for the sustainable energy industry form the focus of this edition.

On the national level the recommendations of the Mandated Renewable Energy Target (MRET) Review should see mandated targets retained and the levels increased, and a continuing and expanded role for solar hot water. Local effects of the MRET review, if implemented, will be considerable.

The current MRET requires WA to deliver some 250MW, valued at \$600M, of new renewable energy projects by the year 2010 to meet Commonwealth targets. This would result in 4% of WA's electricity coming from renewables - a four fold increase on the 1% capacity already installed.

If the recommendations from the Review are accepted, Western Australia's share of the mandatory renewable energy target is set to rise from 250MW to around 600MW by the year 2020, which provides some growth in the second decade of the program. Mark Latham is on the record promising that if Labor wins the next Federal election, this will rise to around 800MW - based on Labor's firm commitment to a 5% MRET. Under this scenario, we could see up to \$1.6 billion in new renewable energy developments, with most projects likely to locate in regional WA.

WA SEA will continue to lobby State and Federal parliamentarians to implement those recommendations and, in this pre-election year, will work with all Parties to ensure election promises become operational reality for our members post-election.

On the international stage, moves toward a more vibrant renewable energy sector are coming from very powerful funding bodies. The recent release of a World Bank Group Report has sent a clear and unambiguous signal to private sector financing agencies by recommending that the "World Bank should concentrate energy sector lending on promoting the transition to renewable energy and endorsing natural gas a bridging fuel, and should not invest in new coal mining developments."

Other recent developments that support our prediction of 'more good to follow' include the EU Emissions Trading Scheme, which continues to move towards trading on 1 January 2005. Each member State is currently preparing their Allocation Plan. The allocation plans need to be in place by March this year as they will form the total cap. We will continue to keep a watch on international initiatives and keep you posted.

With Australia and rest of the world continuing moving to encourage renewable energy and market mechanisms that support its further development, the mode of delivery becomes essential that WA's electricity market is reformed to ensure mechanisms that facilitate the delivery of renewable energy locally. Unique and separate as our physical system is, WA needs to be in tied with progressive developments in the economic and financial management of energy systems that is now available to modern industrialized nations.

While many of us sympathise at an ideological level with a view that says we don't need a market based approach, we just need the Minister to direct the state-owned monopoly to deliver the desired

outcome, our industry members have laboured for years under a State energy system that has consistently seen Governments unable or unwilling to act in such a determined way. There has been no transparent, accountable process whereby our industry could seek redress for a lack of fair access to markets, to infrastructure, to customers. For small-medium, usually innovative, businesses seeking to provide customers with renewable energy opportunities, such as WA SEA represents, there has been little help from policy or legislation. If the past is a good predictor of the future, this system that is so stacked against us must not be allowed to continue.

WA SEA ended last year on a high note, with the Great Debate about energy reform in Western Australia. The debate, which was screened to some acclaim on Channel 31, allowed us the opportunity to explore our differences. The challenge for us in 2004 is to work with our shared commitments to deliver reforms that will make our industry strong and fulfill our undoubted potential. We have a duty to our industry to find pragmatic solutions to ideological issues so that we can allow Western Australian consumers access to the renewable energy that our members can provide.

1. The MRET review findings can be found at www.mretreview.gov.au/
2. World Bank report "Extractive Industries Review" can be found at www.eireview.org
3. The EU trading scheme is moving forward with the inevitable fight over the allocation of certificates. The current thought is that the cost of carbon will be around 20 pounds per tonne of CO₂.

Matthew Rosser CHAIRMAN

Contents

Greens Deliver Next Coal Fired Power Station	4
Status and Future of Electricity Reform	5
WA SEA Breakfast Hon Robin Chapple	6
Debate - Making Way for Electricity Reform	7
MRET The Review Outcome	9
Wave over Given a Boost by SEDO Grants	10
Rise Launched	11
Energy Smart Government Reviewed	12
How You Can Become a Member	13
Green Power Schemes - A Global Success Story?	15

"THIRTY/TEN" is the magazine of the Western Australian Sustainable Energy Association (Inc) ABN 16 549 616 697 PO Box 8078 PERTH BC WA 6849

Advertising Enquiries
Johanna Gastevich
Tel: (08) 9328 8411
Fax: (08) 9328 8933
Email: johanna@wasea.com.au

Editor
Dr Bill Parker
Tel: (08) 9371 6373
Mob: 0403 583 676
Email: renew@westnet.com.au



EXECUTIVE OFFICER
Johanna Gastevich
Suite 5, 18 Stirling Street
PO BOX 8078
PERTH BC 6849
Tel: (08) 9328 8411
Fax: (08) 9328 8933
Email: johanna@wasea.com.au

WA SEA COMMITTEE MEMBERS
Chair: Matthew Rosser
Blair Fox Generation Pty Ltd
Vice-Chair: Brendon Lauri
Solahart Industries Pty Ltd
Secretary: Bill Parker
Renew Editors + Writers
Treasurer: Richard Beresford
Clearer Sky Pty Ltd
Committee:
Nicky Carter
Edwards Hot Water
Christopher Cornish
Energy Developments Ltd
Glen George
Owner, *Margaret River Energy*
Glen Tatam
Partner, *ACMV Consultants*

Circulation: THIRTY/TEN goes to all members of the association with interests in any aspect of sustainable energy. It also goes to all WA State politicians, municipal councils, media, and other decision makers.

Disclaimer: The views published in THIRTY/TEN are not necessarily the views of the WA Sustainable Energy Association (Inc) nor of the editor. Whilst every attempt is made to check the authenticity and accuracy of the contents, neither the editor nor the Association is responsible for any inaccuracies or for actions taken based on the information contained herein.

Printed on 100% recyclable paper.
Print Post Approved: PP602669/00858

Cover Photography:
Bill Parker
Renew Editors + Writers

Magazine Design:
Castledine + Castledine
www.castledine.com.au

© Copyright WA SEA

Greens Deliver Next Coal Fired Power Station

The Greens WA recent rejection of key elements of the electricity reform legislation means they are abandoning the opportunity to effectively address the greenhouse gas crisis and encourage the uptake of renewable electricity, promote demand side management and energy efficiency. *See page 5.*

The Western Australian sustainable energy sector is a keen supporter of energy reform. The reason we have supported reform during the past two years of consultation is because our monopolistic system has not, does not, and will not deliver the opportunities for private sector renewable energy projects to be built. We need an electricity market responsive to national and international triggers aimed at reducing greenhouse gas emissions. *See page 7.*

The Greens WA had an opportunity to drive a hard bargain with a Government keen to reform the electricity market.

Eventually, their tough stance worked and a mandated renewable energy target, raising the proportion of electricity from renewable sources from its current 1% to 10% by the year 2010, was on the table. Such a target would have irrevocably changed the energy mix in this State, accelerating the uptake of renewables and putting us on track to achieve the sort of environmental goals that the Greens WA were elected to achieve.



The 10% target would have a myriad of tangible benefits including:

- Stimulating some 570 megawatts of new renewable energy developments with investment of some \$1.4 billion.
- Making it highly unlikely that additional coal fired capacity could be built as the electricity contracts market would be allocated to new renewable energy projects.
- Reducing WA's greenhouse emissions by some 100 million tonnes over the operational life of the new renewable energy projects.

- Stimulating investment in regional electricity networks - most renewable energy projects would be built in regional WA.
- Laying the building blocks for a sustainable energy system in WA.

In rejecting the electricity reform package, the Greens WA are turning their backs on the sustainable energy industry and our efforts to tackle greenhouse effectively. They are protecting the status quo and power base of one of the nation's biggest greenhouse gas emitters (Western Power) at the expense of action to address the critical greenhouse gas situation faced by our State.

WA Sustainable Energy Association Members

CORPORATE

Stanwell Corporation Limited
Solahart Industries Pty Ltd
Edwards Hot Water Pty Ltd
Alinta Limited

LARGE COMPANY

Carnegie Corporation Ltd
Metasource Pty Ltd
Pacific Hydro Ltd

SMALL COMPANY

Alternate Energy Products
Aust Indo Australia Pty Ltd
Blairfox Generation Pty Ltd
Blairfox Pty Ltd
Cap-Aus Pty Ltd
Energy Visions
Energy Developments Limited
Exhibit Exhibitions and Publishing Pty Ltd
Craig Mostyn Group Pty Ltd
Inghams Enterprises Pty Ltd
Maxilight Industries WA Pty Ltd
Mickbeth Australia Pty Ltd
N M Rothschild & Sons (Australia) Ltd
Perth Energy Pty Ltd
Renewable Power Ventures
SkyFarming Pty Ltd
Sola Kleen Smalls Solar
Solar Dwellings
Westwind Turbines/Venco Products Pty Ltd
Woolstore Insulation

GOVERNMENT AND

LOCAL COUNCILS

Department of Industry and Resources
Fremantle Ports
Central Tafe
Midland Tafe
City of Melville
City of Gosnells
South Metropolitan
Regional Council

COMMUNITY GROUPS

Warren Districts Renewable Energy Group Inc.

RECIPROCAL MEMBERSHIP

Sustainable Transport Coalition
Master Builders Association of Western Australia (MBAWA)



Status And Future Of Electricity Reform

Recent events in Parliament suggest that there is significant difficulty ahead for the Government's electricity reform agenda. While it is not possible to be definitive until the dust has settled, it appears likely that the reform process outcomes may fall well short of original expectations, particularly for the sustainable energy industry.

It appears likely that the Electricity Industry Bill will pass through Parliament (it may have done so by the time of print). This Bill provides for a wholesale electricity market, an independently regulated access code for networks, licensing arrangements and customer protection requirements.

The Electricity Corporations Bill has been withdrawn from Parliament due to lack of support by opposition parties, particularly the Greens WA who have the balance of power and could have carried the legislation. This bill was to restructure Western Power into four separate corporations and to provide improved governance arrangements for the separated corporations, including mechanisms to control their dominant market power.

This is not a good outcome for the market and the sustainable energy sector. It is difficult to ascertain whether there will be Parliamentary support for the restructuring of Western Power in the foreseeable future. The Greens WA appear staunchly opposed to splitting Western Power along functional lines and the Liberal position on restructuring is unclear, although they may possibly support a more limited and less effective restructuring model.

The limited legislative success places the electricity reform program in a difficult position. On the one hand, assuming the Electricity Industry Bill passes through Parliament, the wholesale market can be established, the Access Code put in place and licensing arrangements developed. These are all very positive outcomes. On the other hand, without the restructuring of Western Power it is questionable how effective these initiatives can really be and there is legitimate concern that we may incur most of the costs associated with electricity reform and reap few of the benefits.

The failure to restructure Western Power has substantial implications for private sector participants in the electricity market, including renewable energy generators. For example, it will be very difficult to achieve an effective wholesale electricity market with Western Power participating as a massive combined generator/retailer. Presumably Western Power will simply bypass the market operation as much as possible and will be reluctant to both offer generation to the market and buy electricity from private sector generators. Without Western Power's full participation, it is unclear whether the various market mechanisms would have sufficient volume to allow them to work efficiently and effectively. This could threaten aspects of the market, such as the balancing market, that are vital to renewable energy generators.

In addition, the operation of the market would be undertaken by the biggest player in the market – raising doubts about how unbiased it would be or how it would use commercially sensitive information gathered through the operation of the market.

However, an independently regulated Access Code will be a plus, and should provide benefits over the current situation, but there is doubt about how independent the operations of Western Power's network business will really be while it is still combined with the dominant generator and retailer. The situation will be similar to the current situation, where parties seeking access to Western Power's networks are subject to frustrating, long drawn out processes and suspect that the ring fencing arrangements are far from adequate.

All this is likely to put increased pressure on means to control undesirable monopolistic behaviour by Western Power. Unfortunately the mechanisms in the Electricity Corporations

Bill that were to control the separated corporations, including ring fencing arrangements, limitations on activities such as building new generation and improved powers of direction by Government will not be available. In addition, controlling Western Power is likely to be more difficult than controlling the separated corporations as most of its dealings will be internal to the corporation and thus difficult to scrutinise. This is likely to require a new suite of measures to control Western Power, presumably including a much stronger role for the Economic Regulation Authority, but which fall well short of the measures originally envisaged.

The Government has stated that it remains committed to restructuring Western Power but has put this agenda on hold until there is adequate political support for it to proceed with the wholesale electricity market, the Access Code and licensing arrangements, although arguably in an environment that will make these elements far less effective.

Commitment to the reform process is positive and welcome, however the reform agenda has been designed since the outset as an integrated package, with the restructuring of Western Power forming a critical part of this package. This integrated package now appears beyond reach for the foreseeable future, along with the real benefits to the sustainable energy industry.

WA SEA Breakfast: Hon Robin Chapple

This article is based on a presentation given by the Hon Robin Chapple (Greens MLC) at a WASEA breakfast function in December 2003.

No real commitment to climate change in WA
How well is the WA Government responding to the climate change and global warming challenge that we all face? Robin Chapple was blunt: the commitment to dealing with the causes of climate change simply does not exist in WA. State emissions are rising by nearly 3% per year, excluding land-clearing - that's a doubling time of about 24 years. The recently released Greenhouse Strategy tells us that it's going to keep on rising - a 40% increase over our 1990 levels. Western Australia is the highest greenhouse emitting jurisdiction on Earth, a fact not lost on the people of Tuvalu whose whole country is disappearing as the Pacific warms.

He said that from recent policy announcements we could be forgiven for thinking that the State Government actually intends to force emissions up as rapidly as it can: through promoting fossil fuel developments in the north-west and attempting to drive down electricity prices to attract new energy intensive industries to Western Australia.

Will the disaggregation of Western Power change anything?

The Greens do not support the break-up of Western Power. Robin Chapple told the audience of energy industry professionals that as far as the Greens were concerned, the Government's agenda is about introducing competition, driving down electricity prices, and promoting the prospects of the mining and heavy industry sector. Everything else is secondary. That's what they told the Electricity Reform Task Force to do, and that's what the ERTF has done, according to Mr Chapple.

Mr Chapple's argument was that if the Government succeeds in pushing prices down for big business, this acts as a disincentive to use electricity more efficiently. He said that if industry wants to pay less for power it should work out how to use less electricity.

Mr Chapple was disappointed that, while the ERTF advanced some quite reasonable proposals for renewable energy and demand management, none of them were included in the legislation. The Government position that we'd just have to trust their introduction down the track, was not satisfactory.

Mr Chapple told the audience that the Greens and RE industry had a commitment from the Energy Minister, Hon Eric Ripper in 2002 to proceed with introducing a renewable energy access regime so that local RE businesses could have investment certainty. That was cancelled because, of all things, the current reform process. Again they said: trust us, it will be developed sometime later.

The Greens hold what they call the balance of responsibility in Parliament – their agreement is needed to get legislation passed. Robin Chapple said that government only recently rediscovered the importance of renewable energy when it came to the realisation that the Greens had no intention of supporting the break up. Suddenly the Greens have had a profusion of announcements that the reform process has been about renewable energy all along, but the Greens believe this is clearly not the case.

Another way forward

Mr Chapple referred to the Liberal Party and its own problems with the legislation, arising less from environmental concerns and probably more from the economic issues. He urged the audience to have their input into the way the system eventually works.

At the time of Robin Chapple's address, the Legislative Council had started debating the electricity industry bill. At that time, key parliamentary players, including the Liberals and the Greens supported the establishment of an electricity market, and broadly supported the licensing and access framework that the Government proposes.

The Government is still working on the transitional access arrangements for the RE industry and are talking about having them ready by the time you read this. Robin stated that the Greens support this process entirely.

The Greens also support some of the mechanisms the Government is proposing to make access to the "wires" fair and equitable, so that Western Power is prevented from abusing its market power. The Industry bill proposes putting these decisions in the hands of the Economic Regulatory Authority (ERA), which will be an independent and fairly powerful body.

Mr Chapple said that whilst the Greens have their own problems with the makeup of the ERA, they are confident that the situation will be a vast improvement on what we have today. During question time, he said that words like "may" should be replaced with "shall", in consideration of RE alternatives to energy supply. With an appropriate overhaul of Western Power to bring it closer to Government and force it to consider the public interest ahead of its own corporate interests, he said he strongly believed that a better outcome could be achieved than the one presented by Government.

Mr Chapple concluded by saying that the Gallop Government had not made the case that the reforms are in the public interest. Until such time as they can do this, the Greens will oppose the costly and risky disaggregation of Western Power, while supporting the Government in the aspects of reform that genuinely promote sustainable energy strategies.

Further Information:

www.mp.wa.gov.au/rchapple/issues/energyreform/

The Great Debate - Making Way for Sustainable Energy



Debates on contentious issues rarely show consensus, but they do force the participants to lay bare their basic perspectives.

The debate on electricity reform and the future of sustainable energy in Western Australia hosted by WA SEA in December 2003 started on an encouraging note with the unanimous agreement amongst the participants on two key elements:

1. Western Australia's electricity sector was not facilitating the development of electricity supplies from renewable energy generators; and
2. Electricity reform was necessary in Western Australia.

As the debate developed, however, a wide chasm between the beliefs of the panel participants about the way ahead for sustainable energy soon became obvious.

On the one hand the view held by certain panel members (and a number of the audience judging by the applause when this view was articulated) that the best way ahead was to not break up Western Power and remove its monopoly status over the whole of the electricity supply industry. The preferred policy from this perspective was to maintain and strengthen the current system and have the Minister for Energy instruct a dominant and vertically integrated Western Power to undertake sustainable energy activities as it required.

The supporters of Western Power restructuring in turn argued:

- That it was naive and inappropriate to think that the Minister would, could or should run Western Australia's WA's electricity supply system on the basis of non-commercial criteria;

- The vertically integrated monopoly structure being advocated was the current system and it had clearly failed the sustainable energy sector; and
- That only through a break up of the Western Power monopoly would sustainable energy become a viable part of a decentralised and distributed generation electricity supply sector.

This perspective was based on the history of failure where governments have attempted to direct government business enterprises to achieve public policy objectives. State direction of this type has, in their view, proved to be both an inefficient and unreliable mechanism.

The supporters of reform pointed to the institutional arrangements recommended by the Electricity Reform Task Force that would encourage independent generators using renewable energy sources to efficiently and reliably supply electricity consumers.

The panel included Dr Frank Harman (*former member, Electricity Reform Task Force*), Rachel Siewert (*former Coordinator, Conservation Council of WA*), Scott Ludlum (*Electoral Officer with Robin Chapple MLC*), Matthew Rosser (*Chair, WA SEA*), Ky Cao (*Managing Director, Perth Energy*) and Paul Burlinson (*Branch Secretary, Australian Services Union*). The speakers were introduced by Gerry Gannon, who also posed questions to the panel. The audience also participated in the debate by asking questions and making their thoughts known in an occasionally forthright manner.

These included the restructuring of Western Power through the establishment of new and independent generation, retail and transmission and distribution entities as well as the establishment of markets that would assist independent generators to deliver a reliable supply of electricity to their customers.

Reform supporters pointed to schemes like the Mandated Renewable Energy Certificates scheme in Australia that requires electricity retailers to source a percentage of their electricity sales from renewable sources.

A necessary requirement for this scheme to be effective, they claimed, is for generators of electricity from renewable sources to have non-discriminatory access to the transmission and distribution systems, a condition that cannot be met while those systems are in the hands of the dominant generator.



Similarly, an electricity retailer should be able to choose amongst independent and competing sources of electricity from renewable sources so that effectiveness and efficiency objectives would be achieved. A retailer that is tied to a dominant generator will not be able to make free choices, and instead be forced to favour generation from its own generators.

Reform supporters also pointed to the particular need of generators from renewable sources to have access to balancing power at times when the wind did blow or the sun shine. These would not be forthcoming on a fair basis from a dominant generator that viewed independent and competitive generators as a threat to its dominance.

A number of specific issues were canvassed in the debate including: the value of an integrated Western Power as a source of revenue to the State Government; the prospect of privatization subsequent to the reform process; the role of electricity prices in the economic development of Western Australia; and deficiencies in the legislative programme currently before State Parliament on issues such as energy efficiency and demand management.

The debate was conducted at Piney Lakes Environmental Centre and subsequently televised on Channel 31. If you would like to watch the debate in detail, VHS tapes are available from WASEA at a cost of \$15.00 (including postage).

A Boost For Solar Water Heating

The adoption of Recommendation 24 suggested by the MRET Review Panel would see Renewable Energy Certificates (RECs) being generated for all solar hot water heaters, regardless of what they displace.

Recommendation 24 proposes "All complete solar water heater systems installed, including replacement systems, to be eligible to create renewable energy certificates (RECs) to the full extent of their energy displacement capacity."

This is welcome news to consumers as the current situation sees the replacement of gas or wood heaters with solar water heaters ineligible to receive RECs.

Approximately 750,000 hot water heaters are sold each year with solar accounting for only

4.8% of this market. With 80% of solar hot water manufacturer's located in WA, the local industry have embraced this Recommendation. Solar water heating is widely acknowledged as one of the most cost effective and environmentally sound methods of heating water. Making RECs eligible for all solar water heaters will make solar a more attractive option to consumers and will significantly benefit the environment.



Maxilight Industries (WA) Pty Ltd
"Saving Energy Since 1987"

- ENERGY EFFICIENT FLUORESCENT LUMINAIRES
- PURPOSE DESIGNED SPECULAR SILVER REFLECTORS
- LIGHTING RETROFITS
- ENERGY EFFICIENT LIGHTING DESIGN
- SAVING POTENTIAL
- OPERATING COST ANALYSIS
- GREENHOUSE GAS IMPACT

2/44 Hutton Street
Osborne Park
Western Australia
ph (08) 9443 7210
fax (08) 9443 7209
Web Site: www.maxilight.com.au

The advertisement for the Centre for Energy and Greenhouse Technologies (CEGT) features a yellow and white color scheme. At the top left is the CEGT logo, which includes a stylized sun and the text 'CENTRE FOR ENERGY and GREENHOUSE TECHNOLOGIES'. To the right, the text reads 'New \$14 Million Energy Technology Investment Fund' and 'energy co., investing'. Below this, the text says 'Seeking new technology investment opportunities' and 'Seeking investment partners'. The main body of text describes the Centre as a private company that invests in new sustainable energy and greenhouse gas reducing technologies. It lists three key questions: 'ARE YOU developing a new sustainable energy technology...', 'ARE YOU seeking investment funds...', and 'ARE YOU interested in partnering...'. Contact information is provided at the bottom, including a telephone number, email address, and website. The footer identifies the Centre as an initiative of the State Government of Victoria.

Seeking new technology investment opportunities
Seeking investment partners

The Centre for Energy and Greenhouse Technologies is a private company that invests in new sustainable energy and greenhouse gas reducing technologies.

ARE YOU developing a new sustainable energy technology in any energy related area including generation, transmission, storage and commercial or residential energy efficiency?

ARE YOU seeking investment funds for further development to either the demonstration or commercialisation phase?

ARE YOU interested in partnering with the Centre to co-invest in new sustainable energy and greenhouse gas reducing technologies?

The Centre also provides a range of Member services relating to investment opportunities, new energy technology development and greenhouse gas information.

For an investment application or further information:

Telephone: Stephen Chetcuti, 03 5122 1941 or 0400 134 403
Email: cegt@cegt.com.au

www.cegt.com.au

Centre for Energy and Greenhouse Technologies
50 Northways Road, Churchill, Vic 3842

The Centre is an initiative of the State Government of Victoria

CONGRATULATIONS

Congratulations to Chris Tallentire who has just been appointed Director of the Conservation Council of Western Australia.

The Mandatory Renewable Energy Target

The long awaited (and legislatively required) review of the Mandatory Renewable Energy Target (MRET) legislation was delivered in mid January. The report reviews the first two years of operation of the MRET legislation.

MRET has its origins in 1997, prior to the Kyoto conference of the parties, but actual legislation was not enacted until 2000. The Renewable Energy (Electricity) Act 2000 established the Mandatory Renewable Energy Target which requires Australian electricity retailers and other large buyers of electricity to collectively source an additional 9500 gigawatt hours of electricity

per annum from renewable sources by 2010. Note that it was originally to be 2% but later changed to a fixed 9,500 GWh.

A panel of experts, chaired by Russ Tambling was established in March 2003 to undertake the required review of the MRET legislation. The aim was to determine if the MRET was delivering on

its objectives of encouraging the uptake of new renewables in Australia and reduction in greenhouse gas emissions. The panel travelled around Australia taking submissions. The review received 4,800 submissions and over 200 of these were substantive documents. The panel also met with 115 representative groups.

What WA SEA asked for and what the Review Panel delivered

A summary of what legislation changes WA SEA wanted considered and what the Review Panel recommended in its final report.

WHAT WE ASKED FOR	WHAT WE GOT	COMMENT
10% MRET by 2010 or around 30,000 GWh of new renewable energy by 2010. WA SEA argued that this target would provide the momentum needed to overcome the current inertia and drive new renewable energy development in WA.	No change in the current 9,500 GWh target to 2010. An increase during the period from 2010 to 2020 to 20,000 GWh of new renewables.	WA requires 250MW (\$600 million) of new renewables by 2010 targets and around 514 MW (\$1.3 billion) of new renewables by 2020 to meet its share of the target. Around 4% of WA's electricity will come from RE sources by 2010 and 6% by 2020.
Increase the length of the MRET program to beyond 2020	Recommended extend date beyond 2020 in 15 year blocks	This extension will assist the financing of renewable energy projects. Least cost renewable energy projects typically finance over 12 to 15 years, so any project financing in 2010, for example, will be looking to ensure RECs will be available at least until 2022-2025.
Maintain an effective penalty	Recommended the penalty be CPI linked between the period 2010 to 2020. No change from the prior period.	
Support for solar hot water systems	No lost ground. Extended the eligibility to all complete systems including replacements.	WA currently manufactures approximately 80% of Australia's solar hot water heaters.
Full reviews of the MRET program should occur at three-yearly intervals and the results of the reviews be made publicly available	New review recommended. Triggered by either: - a national economy wide greenhouse abatement scheme is adopted - more than 15% of the total Australian annual RECs surrendered are replaced by the penalty in consecutive years	It is necessary to ensure that legislation is open for modification over its life to maintain its effectiveness in a changing environment. This is relevant particularly in WA with the reform process currently underway.
WA SEA is concerned with the way baselines have been determined for existing large-scale hydro projects, as revealed by the Business Council for Sustainable Energy	No change	RECs will continue to be generated by some existing old hydro projects. This is against the spirit of the legislation and all REC's should be generated by new renewable energy projects.
The adoption of a portfolio approach was rejected as this rests on the assumption that particular renewable markets may need to be encouraged, protected, or discouraged. The future of renewable energy uptake by the Australian community will reside in its pricing and availability.	No change - no portfolio approach was adopted	A portfolio approach is also a very risky strategy to employ in an emerging market. At this stage, it is too early to predict what the shape of the Australian renewable energy market is going to look like – and far too early to start shaping and constraining that market.

Where do we stand?

The Federal Government is under no legal obligation to adopt the recommendations in the review report, or they may see fit to expand them, or the process may come to nothing. The MRET review is part of further policy development and has bearing on the national climate change strategy now under development and the Energy taskforce policy - expected soon.

What Does It Mean In Terms Of WA's Potential Sustainable Energy Industry?

Provided that all of WA's renewable energy obligations are met by local renewable energy projects. By 2010, 4% of the State's electricity needs would be met by renewable energy. New investment in renewable energy will be around \$610 million by 2010 and \$1,300 million by 2020.

It is sobering to note two of the reports most pertinent observations:

- under the rules of MRET all of WA's renewable energy requirements could be met by projects located on the eastern seaboard; and
- that WA is not delivering new renewable energy projects in line with some of the states.

\$14 Million New Sustainable Energy Technology Investment Fund

The Centre for Energy and Greenhouse Technologies has a pool of over \$14 million dollars to invest in new sustainable energy and greenhouse gas reducing technologies. The Centre is a private company formed through an initiative of the Victorian Government.

While the Centre can invest in all stages of new energy technology development, the focus will be on the Development to Demonstration phase of the Research, Development, Demonstration and Commercialisation continuum, where a significant investment gap has been identified.

New technologies that the Centre will consider for investment can be directed at any energy

related activity including production and generation, transmission, storage, and commercial and residential energy savings and emissions reductions.

The Centre assesses investment applications based on the energy efficiency benefits of the technology, the potential to reduce greenhouse gas emissions, and the management and

technical experience of the applicant(s). Consideration is also given to the proposed commercialisation process, industry partnering arrangements and the future marketing/sales strategy.

For further information contact Centre for Energy and Greenhouse Technologies:

Tel: (03) 5122 1941

Fax: (03) 5122 1248

Email: cegt@cegt.com.au

Web: www.cegt.com.au

Wave Power Given Boost by SEDO Grants

In the last round of awards from the SEDO grants committee, two separate companies were granted funds to offset costs of collecting and processing wave power data from ocean sites around our South West coasts.

The two companies are independent of each other and pursue quite different technological approaches to the same challenge - harnessing the energy of the ocean waves.

The World Energy Council has estimated global wave resources contain twice the world's current energy consumption. Wave energy as a renewable energy source is attractive because of

relatively high energy density when compared to solar or wind. It also has the advantage of supply constancy. Both Seapower Pacific and Ocean Power are working with technologies that are smaller and less obtrusive than wind for example.

Ocean Power Technologies Australasia (OPTA) Ocean Power Technologies Australasia (OPTA) is an Australian based subsidiary of the US based wave power generation company Ocean Power Technologies, Inc. (OPT). Metasource (a Woodside company) is a shareholder in both of these companies.

OPTA has developed a wave energy system which uses the energy in ocean wave motion to generate electricity directly. The company has received funding from the Australian Greenhouse Office for a project in Portland, and has a number of discussions ongoing for wave power farms around the country. The parent company OPT Inc has a project in Hawaii with the US Navy, and has recently announced an alliance with a major European Utility.

OPTA's device is placed in the sea between 0.8 and 8 kilometres offshore, where energy can be generated without sacrificing land. The process uses the rise and fall of the waves to drive an alternator system that generates electricity off shore.

The project funded by SEDO is a precursor to examining the feasibility of a 25MW peak wave power station off the coast of Yancheep. The project is the subject of an agreement between the City of Wanneroo, The State Government, and Tokyu Corporation.

The Seapower Pacific System



Seapower Pacific

Seapower Pacific is a joint venture between Pacific Hydro and the Carnegie Group. This wave energy system is a submerged, near shore device on the seabed which delivers highly pressurised seawater to shore based facilities. On shore turbines convert this energy to electricity. The system also produces fresh water by reverse osmosis desalination, using the pressurised seawater. Ultimately, commercial units are expected to deliver approximately 2.4 MW of power on shore and 0.57 gigalitre/year of desalinated water. The system is immune to storm destruction, and is self-tuning to tide, sea state and wave amplitude. Trials are expected to begin in 2004.

Wave Mapping data CD

The results of a SEDO commissioned study are available. The study has determined that WA appears to have one of the world's best wave energy resources. From Geraldton to Esperance, researchers have found an estimated 40 - 50kW per linear metre of energy, and sometimes higher. Readers interested in receiving more technical details about Wave Mapping of WA's south west coastal can obtain a CD ROM from SEDO: sgc@energy.wa.gov.au



Measuring wave power

The data collection buoy is anchored using heavy chains to the seabed. An elastic cable - not unlike those used in Bungie jumps - is tethered to the buoy which sits on the ocean surface and rides up and down with the waves. Peter Candilo of Fugro Surveys is seen with two of the measuring buoys.

Sustainable Energy Development Office Grants Committee Funding Rounds

The Sustainable Energy Development Office Grants Committee program allocates funds twice-yearly via a competitive grant application process. Individual grants are usually in the range of \$10,000 to \$50,000.

Program for 2004

The Sustainable Energy Development Office Grants Committee's next funding round will be coming up in August

Projects will be evaluated on the extent to which they will showcase technologies to the public. Up to \$150,000, to a maximum of

\$50,000 per project, will be available under this part of the program.

Approximately \$150,000 will also be available for more general research and development, information and education programs, which meet the goals of the Sustainable Energy Development Office Grants Committee.

For more information, please contact Executive Officer Sustainable Energy Development Office Grants Committee
9th Floor, 197 St Georges Terrace
PERTH WA 6000
Email: sgc@energy.wa.gov.au
Phone: (08) 9420 5685
Fax: (08) 9420 5700

RISE launched

On 17th March the new Research Institute for Sustainable Energy (RISE), based at Murdoch University, was officially launched. Western Australia has a long history of being at the forefront of renewable energy research and development in Australia and the establishment of RISE will mean that Western Australia will continue to play an important role in this area.



Dr Rodney Thiele, Director R&D Curtin University; David Harries, Director RISE; Denis Smedley, AGO; Professor John Yovitch, VC Murdoch; Paul d'Sylva, Director R&D Murdoch University; Tony McRae MLC, Member for Riverton.

RISE is a joint venture between Murdoch and Curtin Universities, together with a small number of companies. Its function will be to assist in the development and growth of Australia's renewable energy industries, with a particular focus on renewable energy systems suitable for use in remote, rural and regional areas.

The establishment of RISE resulted from the announcement in mid-2003 that the Australian CRC for Renewable Energy (ACRE), located in Western Australia, would be wound up. There was a strong feeling that certain key activities and services provided by ACRE needed to

continue to be available to the renewable energy industry. This included the RAPS component testing facilities (ACRELab) and the professional training and development programs.

RISE was thus created as a new research institution that will incorporate the key activities of ACRE, Murdoch University's Renewable Energy Research Institute (MUERI) and Curtin University's Centre for Renewable Energy Systems Technology Australia (CRESTA).

Funding has been obtained through the Australian Greenhouse Office's Renewable Remote Power Generation Program (RRPGP) to establish an industry support center, ResLab, within RISE. ResLab will provide the testing, demonstration, monitoring, resource assessment and professional development and training services for the renewable energy industry.

RISE will also undertake research on renewable energy systems and devices, provide renewable energy education courses and workshops and provide independent policy advice relating to renewable and sustainable energy.



Tony McRae MLC, Member for Riverton

Further Information:

?????????????
?????????????
?????????????

The Alinta Wind Farm

Congratulations to WA SEA Members Alinta Limited and Renewable Power Ventures (RPV) who recently announced the development of a 90MW windfarm to be located 35km south east of Geraldton. Alinta has signed a power purchase agreement to enable RPV to develop the \$200 million project.

The Alinta Wind Farm will be by far the largest in Western Australia and will comprise of 54 wind turbines, each on a tower 80 metres high. If laid end to end, the towers would stretch 4.3kms. The precise combined generating capacity of the turbines is 89.1 MW.

The windfarm will be capable of powering the equivalent of 60,000 homes. Each year, the green energy produced by the Alinta Wind Farm will displace 400,000 tonnes of greenhouse gas emissions produced by traditional power generation.



Construction is scheduled to begin in July 2004 with the first electricity to be produced in mid-2005. The project will inject approximately \$30 million into the Mid-West region economy and create about 200 jobs during construction.

Energy Smart Government: Paving the Way for a Sustainable Government

In October 2003, the State Government published its report on Government's own achievements in reducing non-transport related energy usage in the first year of the Energy Smart Government Policy. The aim by 2007 is for all general sector Government agencies with 25 or more full time employees to achieve at least a 12% reduction. The report looked at 62 agencies of which 55 were required to divulge their usage and seven who did so voluntarily. An interim 2002/2003 target of 5% was set, although in a short time frame of one year.

The overall aggregate result for 2002/2003 was a disappointing 2.71% reduction, nearly half the desired target. One notable entity was the Office of Energy with an 8.08% increase, and the biggest increase (16.75%) was reported by the Mid West Development Commission, based in Geraldton. On the positive side, several agencies achieved much better than the 2007 target in the first year, the most notable being the State Supply Commission at a 30.93% reduction, a voluntary participant.

The total energy use for a particular government department has many components and some of them are related to the building fabric and its lighting and air-conditioning systems. It is reasonable to suggest that departments that are located in the same building are exposed to the same "base" energy conditions.

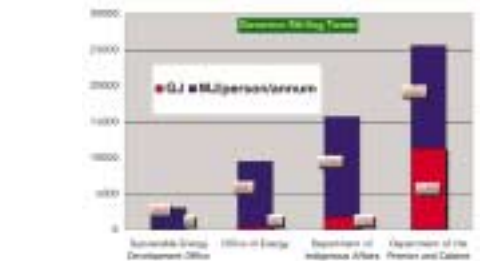
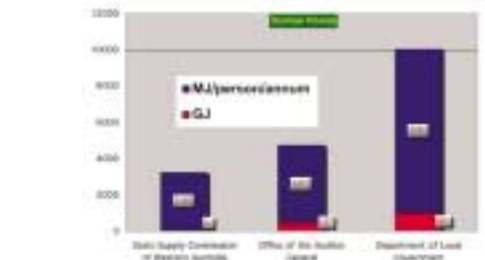
At the commencement of the Energy Smart Government program, a \$2 million fund was available to undertake remedial works, yet only three agencies have taken up the offer. The Department of Land Administration (DOLA) received \$516,000. This same department has also entered an energy performance contract, the intent of which is to pay for upgrade works via reductions in energy and costs. Using published figures (a reduction of 10.24% is \$63,718.40 per annum) we assessed that the value per annum of the savings by this route is a little over \$300,000 – a long way short of the \$516,000 invested. A further major capital advance (\$900,000)

was made to the West Australian Sports Centre Trust to install geothermal swimming pool heating. A large portion of the \$2 million has now gone, and limited to a few projects instead of being spread across government.

Why haven't other agencies applied for funding? It was suggested when the program was launched that penalties will apply, but as half the year is gone and no penalties have been forthcoming. With the 2003/2004 target being a 6% reduction, if agencies don't achieve this will and if so, how will they be penalised?

Government can lead the way
Government needs to lead by example. One of the cornerstones of Greenhouse gas emission reductions is using energy more efficiently (the other is genuine emission free renewable energy). Although we have made a start, there is a long way to go to achieve even the modest targets. As any energy management professional knows, a 10% reduction can often be achieved without capital outlay. Six departments showed an average increase of 13.2%, the highest being 16.75% (where an influx of staff and the attendant disruptions were held responsible for the result). But the data can also be viewed in other ways. On page 18 of the report there is a tentative suggestion that there is room for improvement. In the data for Office -Tenant and Light and Power the analysis shows the energy used per person, and whilst across the board comparisons are unrealistic because of different functions and buildings, it is reasonable to compare SEDO with the Department of Premier and Cabinet where the latter is nearly five times less effective with energy on a person/annum basis. It would be interesting to compare a similarly sized commercial office.

The full report can be seen at www.sedo.energy.wa.gov.au



There are seven Government departments that have only one main office in two buildings, Dumas House in West Perth and the Governor Stirling Tower in St Georges Terrace. Both buildings are by no means new and the Governor Stirling Tower is no model of high tech energy efficiency, being some thirty years old and using some elderly plant. The comparisons are not favourable for some. None of these agencies sought either facilitation funds (low level funding for energy audits and consultants) or capital funds for works.

The Office of the Auditor General has instituted controlled management of lighting, upgraded air conditioning on all floors, including the installation of separate air conditioning for IT areas, and applied heat reflecting film on all external windows, amongst other measures.

Membership Application

Since its inception in July 2002 WA SEA Inc. has constantly worked towards achieving our mission of 30% sustainable energy use by 2010. The aim of the Association is to give voice to those with an interest in sustainable energy and to promote the development and adoption of sustainable energy technologies and practices.

WA SEA is guided by six key aims:

1. Promoting the adoption of sustainable energy solutions that encourage the protection of the environment which traditional energy sources are damaging
2. Forming productive relationships with stakeholders
3. Facilitating the adoption of sustainable energy technologies and practices as a method of reducing WA's greenhouse gas emissions
4. Lobbying WA Parliamentarians and Government agencies and providing representation on relevant committees
5. Providing relevant and timely information to members and stakeholders
6. Increasing employment opportunities within the WA sustainable energy industry by championing:
 - Policies and programs that foster the expansion of WA's sustainable energy industry
 - The adoption of sustainable energy technologies and practices by energy consumers

If you require further information about WA SEA and our activities, please contact Johanna Gastevich on (08) 9328 8411 or johanna@wasea.com.au

Membership Options and Benefits

ALL MEMBERS receive the following benefits...

- Membership Certificate
- One Vote for election of WA SEA committee members
- THIRTY/TEN industry magazine
- Fortnightly electronic newsletter
- Invitations to industry events, seminars and workshops
- Discounts offered for WA SEA organised events
- Eligibility to join the WA SEA Management Committee

In addition:

SMALL COMPANY MEMBERS receive...

- Three copies of THIRTY/TEN
- 5% discount for advertising in THIRTY/TEN
- Acknowledged as a Small Company Member of WA SEA
- Authorisation to use WA SEA logo

LARGE COMPANY MEMBERS receive...

- Five copies of THIRTY/TEN
- 10% discount for advertising in THIRTY/TEN
- Discounts offered for WA SEA organised seminars/workshops
- Acknowledged as a Large Company Member of WA SEA
- Authorisation to use WA SEA logo

WA SEA - APPLICATION DETAILS

Contact Name: _____

Position: _____

Company Name: _____

Street Address: _____

Suburb: _____

State: _____

Post Code: _____

Postal Address: _____

Suburb: _____

State: _____

Post Code: _____

Telephone: _____

Fax: _____

Mobile: _____

Email: _____

Website: _____

Signature of Applicant: _____

Date: _____

Please make cheques payable to:
Western Australian Sustainable Energy Association Inc.
ABN: 16 549 616 697

Credit card payments:

I authorise you to debit my credit card (please tick appropriate box)

Mastercard VISA Bankcard

Date of Expiry: _____

Cardholders Name: _____

Select category	Cost (Inc.GST)
<input type="checkbox"/> Student	\$25
<input type="checkbox"/> Non Profit Org. /School	\$55
<input type="checkbox"/> Individual	\$137.50
<input type="checkbox"/> Local & State Government Agency	\$350
<input type="checkbox"/> Small Company	\$550
<input type="checkbox"/> Large Company	\$1,100
<input type="checkbox"/> Corporate	\$5,500

Please complete, fold, enclose your payment, staple or tape and post.

Please note: All memberships require approval from the WA Sustainable Energy Association Committee.
All members will be notified via mail of acceptance.

Delivery Address:
PO Box 8078
PERTH BC WA 6849

No stamp required
if posted in Australia



WA Sustainable Energy Association Inc.
Reply Paid 8078
PERTH BC WA 6849



Please remove by cutting along dotted line, fold on lines provided and seal with one piece of tape

Green Power Schemes - A Global Success Story?

Are green power schemes doing what they set out to do? In a report published in 2002 by the American National Renewable Energy Laboratory (NREL), the major conclusion was that the green electricity market will not succeed without customer education and aggressive marketing.

This was based on research that has examined the ways in which electricity utilities worldwide have administered their green power marketing campaigns. At the high end of the success scale is Holland where the uptake of green power was 13% in 2002. In Australia the best results – proportion of customers choosing green power – has been in the ACT with now about 7%. In WA the figure has not gone over 0.1%. The typical global figure is about 1%.

The purpose of green power schemes is to use a premium on the regular energy bill, voluntarily agreed to by the customer, to finance the construction of new renewable energy generation plants. According to NREL, the effect has been limited so far, but the exception to this is Australia where certified suppliers are required to source 80% of their green electricity from new facilities. In most cases, the premium is usually about 1 – 2 cents per kWh (the “unit” in our local billing terms) and in some cases can be as high as 10 cents/kWh.

The local story - how green power schemes work locally

In 1997, the Sustainable Energy Development Authority (SEDA) NSW, lead by Cathy Zoi, set up a program whereby the electricity retailers in NSW could offer a way of funding renewable energy. The customers make a small contribution each time they receive their bill and the funds accrued are used to build or promote renewable energy projects. The consumer is protected by the requirement for regular audit, and the audit reports are publicly available (visit www.greenpower.com.au). The SEDA scheme was successful and in May 2000 the program was expanded nationally and became the “National Green Power Accreditation Program”. The audit process is still managed by SEDA.

In Western Australia, the state's electricity retailer, Western Power, joined the program in 2000 and offers a “consumption based” product to its residential and commercial customers who must be situated within the South West Interconnected System (SWIS). The Western Power product “Natural Power” allows residential and commercial customers to source all or part of their electricity from ‘green’ power generators, including hydro and solar. Both residential and commercial customers can choose to purchase 100, 75, 50, 25 or 10 per cent of their electricity usage as Green Power. Other percentages are negotiated for large contract customers; typically, local government opts for 10%.

The early SEDA marketing in NSW was a model of how to go about “branding” a product so that the community becomes aware. Yet even with a comprehensive and effective marketing campaign, experience has shown that take-up is not high enough to make any substantial difference to renewable energy generating plant that gets built. This is in contrast with a recent Greenpeace survey that showed 83% of Australians (and even more in WA) would be prepared to pay more for renewable electricity. The desire and the actuality are disconnected.



What is achievable with the actual funds? Using the SEDA audit data (Financial Year 00-01 and 01-02) we can do some hypothetical calculations. Using the best case scenario for an example with all of the registered green power customers have opted for the 100% option.

In Financial Year 00-01 there were 566 customers registered. At the same time one year later there were 711, including 76 commercial customers. How much money could have been generated in these two years?

Taking an average of 600 residential customers over the two years, and using Western Power's own consumption average of 13kWh/day, these customers would have paid \$141.96 annually. From this, the 600 customers would have returned just over \$170,000 for that two-year period. Clearly, commercial sign-ups will boost that income. However, this minimal return can not support the development of renewable energy projects in Western Australia, the best we could hope for would be some promotional work.

Further Information
www.greenpower.com.au
www.wpcorp.com.au
www.osti.gov/bridge (NREL report)

Further Information about
 Natural Power in WA:

Call: 13 13 53

Some of Western Power's Natural Power commercial customers

- Belmont Forum Shopping Centre
- Mirrabooka Shopping Square
- Central Park Office Tower
- St John of God Hospital (Subiaco)
- Cities of South Perth, Stirling and Canning
- Town of Victoria Park
- Shires of Serpentine-Jarrahdale, Capel and Chittering
- Department of Conservation and Land Management
- Channel 7



Western Power only offers the 10% option to commercial customers. Major customers can negotiate smaller options if they wish, but they may not be able to use the Green Tick logo if they don't purchase enough Green Power.

The Earth Friendly Alternative

Earth Friendly is an electricity-based product certified under the national Greenhouse Friendly programme, co-ordinated by the Australian Greenhouse Office (AGO). All emissions created in the mining, generation, transmission and use of the electricity sold under *Earth Friendly* will be offset or abated by certified abatement projects. *Earth Friendly* will be greenhouse gas emission neutral.

Natural Power uses renewable energy sources that have minimal or no greenhouse gas emissions. *Earth Friendly* uses fossil fuels to produce electricity and offsets any emissions created. Under the guidelines of this programme Western Power must offset any emissions generated via *Earth Friendly* through purchasing emission reduction certificates from certified Greenhouse Friendly Abatement Projects.

The renewable energy sector will benefit in no way from the *Earth Friendly* program as no additional funding is put towards the delivery of renewable energy projects.



We're generating a lot of excitement.

Alinta and Renewable Power Ventures (RPV) have combined forces to develop Western Australia's largest wind farm.

The 90-megawatt Alinta Wind Farm, located just south of Geraldton, is one of the most significant steps forward for the renewable energy industry in the state. Each year, the green energy produced by the Alinta

Wind Farm will displace some 400,000 tonnes of greenhouse gas emissions produced by traditional power generation. That's the equivalent of removing 80,000 cars from WA roads.

The first electricity from the Alinta Wind Farm is expected to be produced by the middle of 2005.

The Alinta Wind Farm is an integral

part of Alinta's vision of providing cheaper and cleaner energy for all Western Australians.

For more information on the Alinta Wind Farm, visit www.Alinta.net.au or phone Tony Robertson at Alinta on (08) 9486 3014 or Adam MacDonald at Renewable Power Ventures on (08) 9268 3311.

