

# Shooting the Breeze...

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## The future ain't what it used to be

– George Carlin

No matter what you do for a living, where you live, or how much money you make, everything you do has an impact on the planet.

Whether large or small, every action is important.

The factors contributing to global warming can seem overwhelmingly complex – big corporations, the government, special interest groups, and our own daily lives are all tangled together in a web of interconnecting needs, wants, and plain old habits.

Unless you're a power player on the world stage, you might feel powerless to disentangle the "big" stuff.

That's why we arranged with the Australian Conservation Foundation to include their booklet, "Australia's Inconvenient Truth", in this newsletter. It outlines some of the things you can do at home

**How could I look my grandchildren in the eye and say 'I knew about this, and did nothing'?**

- Sir David Attenborough, on global warming

and at work to reduce your greenhouse gas emissions – and the best part is, it really isn't difficult to make a difference!

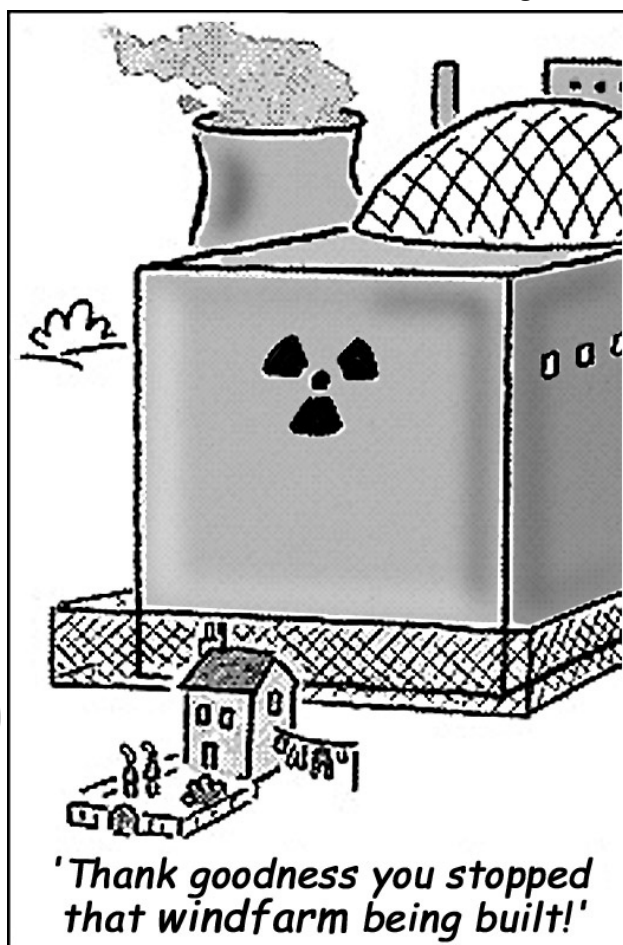
The Denmark community windfarm will make a difference by saving about 7500 tonnes of carbon dioxide a year entering the atmosphere.

In doing so it will supply clean, green power equal to about 60% of Denmark's annual consumption, and boost the local economy, by keeping some of the \$1-million we pay for electricity each year in the district.

It is a community-owned project, so by investing in it you will have a say in how it is run and how its profits are used – and your electricity bills will be

**An Inconvenient Truth - coming to a civic centre near you!**

DCW has purchased a copy of Al Gore's highly praised documentary *An Inconvenient Truth*, and will show it at the civic centre early next month ... keep an eye on the Denmark Bulletin for details.



lower, through the annual dividend paid to shareholders.

Feasibility study proves the point

The project's final feasibility study, delivered on September 20, confirms that the windfarm is technically and financially viable.

DCW chairman Craig Chappelle said "it vindicates the community's desire, clearly stated in public workshops three years ago, for Denmark to have a sustainable-energy future.

"The study shows that, on the best site, a small-scale, community-owned windfarm can deliver environmental and social benefits, and still turn a profit."

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[www.dcw.org.au](http://www.dcw.org.au)

## ► The future ain't what it used to be cont'd

Because of the inherent limitations of the existing Western Power grid the windfarm will be smaller than originally planned – 1.6 megawatts (MW) instead of 2.4 – and comprise only two turbines.

“However, with local support growing steadily and the state government committed to seeing the project succeed, it is just a matter of time until the windfarm is pumping pollution-free electricity into Denmark homes,” Craig said.

The completion date is currently expected to be 2009, due mainly to a worldwide backlog of orders for wind turbines.

In the meantime, planning and connection approvals will be obtained, further site studies completed and investment sought.

“The key goal remains that Denmark people own the windfarm, so we encourage local individuals and businesses to consider investing. We would hope that at least half the project could be financed this way,” Craig said.

DCW has also applied for a regional assistance grant available to renewable-energy generators that would cover the other half of the \$2.6m project.

A prospectus will be issued in due course, offering shares in Denmark Power Company, the legal entity that will manage the windfarm's operation.



DOING THE BUSINESS DCW chairman Craig Chappelle (left) and GHD principal Jim Gooding sign off on the windfarm's final feasibility study (FFS). The study has determined that the project is technically and financially viable, even though smaller than originally planned.

*“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”*

–Margaret Mead

## Drought won't be solved without tackling climate change

The Australian government must address climate change and drought together if it hopes to protect the future of farmers, says a leading climate thinktank.

The Sydney-based Climate Institute says that though the present drought is the worst on record, the federal government has failed to communicate the links between it and climate change.

Institute CEO Corin Millais said that ABARE estimated that the 2002-3 drought cost the country \$6.6 billion.

“Further climate change means that droughts will increase and intensify, so a strategic response to the drought requires tackling the root cause – rising greenhouse gas emissions.

“We will never solve the drought if we don't solve climate change,” Mr Millais said, pointing to the facts that:

- Nine of the ten warmest years since records began in 1861 have occurred in the past decade
- The average surface air temperature of Australia has increased by 0.7°C over the past century
- 2005 was the warmest year on record across Australia, with the mean temperature being 1.09°C above the 1961-1990 average
- The warming across Australia has been accompanied by declines in regional precipitation over the past 50 years, particularly along the east and south-west coasts
- El Niño events became more frequent, persistent, and intense during the last 20-30 years (to 2001) compared to the previous 100 years
- The CSIRO now expects most of Australia to experience an annual average temperature increase of 0.4 to 2°C by 2030, and one to 6°C by 2070.

“The current drought's severity has been exacerbated by high temperatures consistent with low rainfall, as well as enhanced levels of evaporation,” Mr Millais said.

“Tackling drought means showing leadership on climate change and that's what will really help our farmers.

## *When only the best will do*

The Denmark community windfarm got some unexpected world-class support recently, from renowned ecologist Dr David Suzuki, during his visit to Perth as part of a world tour to talk about sustainability and environmental challenges.

Denmark resident and DCW member Joanne Carter, who is currently studying at UWA, managed to collar Dr Suzuki after his talk and ask him about wind energy.

He said the proposed windfarm was an opportunity for action on behalf of future generations.

Though debate was healthy, opposition was sometimes misguided and polarised communities unnecessarily. It was worth remembering that “if we lose the Earth, we lose everything”.

It was a tragedy that Australia was not capitalising on its abundant renewable resources, such as wind and solar energy.

In much of Europe significant steps have been taken for years to reduce reliance of fossil fuels, with wind now a major contributor to the energy mix – and reaping profits.

Dr Suzuki said the Australian government's position on the Kyoto Protocol was embarrassing and a “bogus argument”.

If the biosphere is wrecked, it will not be done by those who couldn't give a damn about it – they now belong to a diminishing minority. It will be destroyed by nice, well-meaning, cosmopolitan people who accept the case for cutting emissions, but who won't change the way they live ... Politicians won't jump until the rest of us do, (so) do you really want to stop climate chaos, or do you just want to feel better about yourself?

– George Monbiot, The Guardian, 21/9/06



## Wind could meet the shortfall in fossil fuels

BRUSSELS: The world's wind industry could install 1200GW of turbines by 2030 to meet the shortfall in oil and gas supplies, according to the Global Wind Energy Council and Renewable Energy Systems.

"The world's energy resources are not sufficient to sustain expected growth trends," said the joint survey of world fuel resources and their impact on the development of wind energy.

A growing gap between energy demand and the available supply of oil and gas meant that high energy prices were here to stay.

The report shows that many forecasts have overestimated global reserves of oil and gas, and rebuts predictions by the International Energy Agency that 60% of global energy could still be provided by oil and gas by 2030. It estimates that production of oil could peak in eight years and gas in 25, with prices first rising steeply.

While coal could last until the end of the century and increase its share of energy supply, coal for large-scale power generation would only be acceptable if clean coal technologies were developed, which currently have cost and technological barriers<sup>1</sup>. A serious shortfall between demand and supply could become evident by 2010, with a 10% shortfall by 2020 and an 18% shortfall by 2030.

Wind energy had been the fastest-growing energy source of the last decade, driven by increasing environmental and energy security concerns.

Natural gas could support only a quarter of the new gas-fired power additions planned until 2030, leaving a gap of 1200GW for other power sources.

That gap offered enormous potential for wind power that was unforeseen by the GWEC's wind capacity forecasts.

Wind power was clearly one of the most cost-effective and environmentally-acceptable energy technologies, the report concluded. (Refocus Weekly)

1. A recent study by Australia's CSIRO has concluded that carbon sequestration (the pumping of CO<sub>2</sub> back into the ground) is not cost-effective when applied to existing coal-fired power stations. To be successful it would require new, high-tech facilities built in geologically suitable areas – which may be a long way from existing transmission infrastructure, thus adding to the high cost of building new power stations.

## WARET Bill offers new hope

A private member's Bill before the WA Parliament could see the state's 2010 renewable energy target of 6% increase to 20% by 2020.

Greens MLA Paul Llewellyn's WA Renewable Energy Targets (WARET) Bill is designed to fill the gap left by the Howard government's backslide on renewing its Mandatory Renewable Energy Targets (MRET) legislation.

WA's greenhouse gas emissions increased by 2.8% a year between 1990 and 2002 and are projected to continue rising, with electricity generation contributing 60%.

World climate experts are now calling for a 90% reduction in carbon dioxide emissions by mid-century, as the latest findings paint an increasingly dismal picture.

Victoria and South Australia have also introduced legislation to replace MRETS with state-based schemes setting higher targets.

Renewable energy projects also create 2-3 times more jobs per megawatt-hour than coal-fired generation.

The WARET Bill is due to be debated in the current session of Parliament.

## Global green power output has increased 104% since 1994

WASHINGTON DC: The world's generation of green power increased by 104% between 1994 and 2004, according to the US Department of Energy.

In the same decade the total global output of primary energy – petroleum, natural gas, coal and electricity from hydro, nuclear, geothermal, solar, wind and biomass – rose by an average of 2.2% per year.

Petroleum – crude oil and natural gas – remain the world's most important primary energy source, accounting for 37.5% of primary energy production.

Coal ranked second, with 25.6% of world primary energy production, while dry natural gas ranked third at 23.1%. Hydro, nuclear, and "other" – geothermal, solar, wind, wood, waste – ranked fourth, fifth and sixth respectively.

Combined, they generated a total of 5.7 trillion kWh in 2004, with nuclear output increasing significantly, from 2.1 to 2.6 trillion kWh, or 23.2%. Hydroelectricity contributed 2.7 t-kWh in 2004, up 17.3% from 2.3 t-kWh in 1994.

Geothermal, solar, wind, and wood and waste power generation also increased significantly over the period, rising from 164 to 334 billion kWh – an increase of 103.7%.

The generation of hydroelectric power increased by 406 billion kWh between 1994 and 2004, an average annual increase of 1.6%, with Canada, China, Brazil, the U.S. and Russia as the five largest generators with combined output that accounts for 51% of world total.

The US, China and Russia were the leading producers and consumers of world energy in 2004, producing 40% and consuming 43% of the world's total energy. (Refocus Weekly)

Car pollution causes illness and death, and mostly afflicts the elderly, poor, sick and young. It also contributes to global warming, putting millions at risk from drought, flood, hunger and homelessness.

- Rev Clive Calver, president, World Relief

# Dubya's home state gets the wind up

A 735MW windfarm has just been completed in Texas, home state of US president and Kyoto refusnik George W Bush.

In keeping with the state's reputation it is big – in fact it has the largest capacity in the world. The Horse Hollow Wind Energy Center has 410 turbines, spread over 47 000a (19 000ha) in Taylor and Nolan counties.

“Projects like this are possible because of the pro-business environment that exists, as well as tremendous support from local communities,” said Jim Robo of FPL Energy, which operates the windfarm.

The facility provides significant economic benefits to the area in the form of taxes, new jobs, lease payments to landowners and the purchase of local goods and services.

The new windfarm places Texas ahead of California as the top US state in cumulative windpower capacity, according to the American Wind Energy Association.

## Facelift for DCW website

Among the things we have done to keep the community informed about progress of the windfarm is to create a website.

We confess that it has been neglected of late and become a bit run down, as other things took priority ... but not any more.

Hopefully, by the time you read this the new, revamped website will be complete – but if not, please be patient, it isn't far away!

# AGM re-elects committee

In a clear expression of confidence in the project and current management, DCW's annual general meeting on October 18 unanimously re-elected the outgoing committee for the coming year.

A record 34 members attended, with 11 proxies and 26 apologies being registered.

If you want to know more about the windfarm email info@dcw.org.au, visit our website, www.dcw.org.au or phone Craig Chappelle 9848 1150, Murray Thornton 9848 1917 ah, Roger Seeney 9840 9036, John Sampson 9848 1629, Gary Schwab 9840 9123, Duncan Archer 9840 9940, Peter Keynes 9840 9230, Arley Egerton-Warburton 9840 9422, Cheryl Reid 9840 9002.



**NATURAL ATTRACTION** The Albany windfarm attracts more than 10 000 visitors a year, including this group of Denmark residents. The Denmark windfarm will offer tourists and locals a unique panorama of the Southern Ocean and surrounding countryside. A walk trail and interpretive booth are proposed, as well as connection with the Bibbulmun Track, which is used by thousands of people each year.

# We'd love you to join us ...

(and you'll receive a FREE car sticker!)

Denmark Community Windfarm Inc is a registered, voluntary, not-for-profit group formed to implement the community's stated wish to create a sustainable-energy future for Denmark, to help combat climate change.



**Denmark Community Windfarm Inc**

PO Box 518 Denmark 6333 • ABN 72 668 575 623

## Membership application

Name/s (PLEASE PRINT) .....

Postal Address .....

Residential Address (IF DIFFERENT) .....

Phone..... Fax.....

Email (PLEASE PRINT) .....

Fees enclosed: \$5 individual >  \$10 household >  \$25 corporate >

Signed..... Date .....

Please post your completed form, with your payment, to the address above. Thank you.

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