



COVER STORY

TAP INTO CLIMATE CHANGE



James Dunn

Renewable energy investing holds opportunity and risk

WHETHER you are a 100 per cent believer in climate change and anthropogenic (human-caused) global warming or not, the theme represents a “clear and present investment opportunity”, says Ross Paul, chief investment officer of funds manager Bakers Group.

“Aside from the climate change issue, it’s pretty clear the world is in a transition phase in energy, from a hydrocarbon world, through a mix of alternative and renewable energy sources, to ultimately a world with a more diversified suite of energy sources, with much greater reliance on renewable energy sources. Along the way that’s going to bring investment opportunities.”

Australian investors have several alternatives in tapping into these opportunities. They can invest directly in stocks listed on the Australian Securities Exchange (ASX) that are involved in renewable energy and carbon emissions offsets. Or they can invest in the several managed funds that have sprung up this year to offer investors exposure to climate change-oriented investments.

On the ASX, investors have had a relatively small degree of choice in the renewable energy sector, particularly if financial viability is applied as a criterion. Standouts of the local sector are Babcock & Brown Wind Partners (ASX code BBW, market cap \$1.4 billion), which has investments in wind

power in Australia, Germany, France, Spain and the US; Viridis Clean Energy (VIR, market cap \$173 million), which has investments in wind power in Germany and Britain, power from landfill gas in Britain and the US, and natural gas and process gas (gas captured from industrial processes) in Italy; and Energy Developments (ENE, market cap \$530 million), which operates power generating capacity of more than 480MW in Australia, Britain, the US, France, Greece and Taiwan, sourced mostly from landfill gas (gas created when micro-organisms cause organic waste to decompose in landfills).

There is also GRD (GRD, market cap \$400 million), which has also established waste-to-power technology at its operating plant at Eastern Creek, Sydney, and is building two plants, with a processing capacity of 600,000 tonnes a year, in Lancashire in England. GRD is not a pure exposure, as its largest operating division is its resources engineering business.

After that, the market has a group of emerging technology situations, like the “hot rock” geothermal energy companies, and a cluster of biofuel companies struggling in the wake of drought-induced rises in the price of their feedstocks.

The geothermal energy hopefuls aim to use hot dry rocks (HDR) technology, which pumps water deep into the earth on to rock layers heated by the earth’s core to form super-heated vapour, which drives energy turbines. The first flows of geo-



thermal steam have been achieved by Geodynamics (GDY, market cap \$376 million) and there are five other players in this field: Petratherm (PTR, market cap \$51 million), Geothermal Resources (GHT, market cap \$40 million), Torrens Energy (TEY, market cap \$27 million), Green Rock Energy (GRK, market cap \$19 million) and the newly listed Kuth Energy (KEN, market cap \$7.6 million). Paul says wind is the most advanced form of renewable energy in terms of being turned into an investable opportunity.

“Wind is in use, it is supplying power and making money. Solar is also quite well understood, but making solar viable outside small-scale applications has been a challenge. Geothermal is still well behind wind in investability — it is still in the proving stage, and is nowhere near on line — but it is interesting because it is potentially capable of baseload power (a steady, constant flow of power).”

Christian Jensen, investment manager at environmental investment company CVC Sustainable Investments, says renewable energy “doesn’t come any more renewable” than hot-rock energy.

“Because it can provide baseload power, geothermal is the best of the uncommercialised technologies out there. On the debit side, it’s like any exploration play: you’ve got to find the heat resource, drill it and quantify the steam resource. Then you’ve got to build a power station and connect up to the grid. But the problem is that the grid is usually a long way away from where the companies are operating.

“I have no doubt that geothermal energy will be an important part of the energy mix in the future, but the geothermal companies are quite some time away from producing power.”

Also in the renewable energy sector are Enviro-Mission Ltd (EVM, market cap \$9.9 million), which wants to build a \$1 billion 200MW “solar chimney” in southwestern NSW; and Carnegie Corp Ltd (CNM, market cap \$76 million), which is developing its CETO wave power technology. The attraction of wave power is that, like geothermal, it does not go offline.

Enviro-Mission’s “solar chimney” would feature a large greenhouse covering 13sq km: as the hot air rises, it would escape up a 990m tower in the centre of the structure. Enviro-Mission’s proposal has yet to be approved. If built, the structure will be almost twice as high as the tallest building in the world.

Then there is the group of companies producing biofuels, which are generated by biomass and give off lower greenhouse gas emissions than mineral-based fuels. Among Australian companies in this field are: Babcock & Brown Environmental Investments Ltd (BEI, market cap \$65.7 million), Australian Renewable Fuels Ltd (ARW, market cap

\$12.6 million), AgriEnergy Ltd (AAE, market cap \$17.6 million), Australian Biodiesel Group Ltd (ABJ, market cap \$16.5 million), Sterling Biofuels International Ltd (SBI, market cap \$7.1 million) and Mission Biofuels Ltd (MBT, market cap \$65 million).

“Biofuels has been a very disappointing sector,” Jensen says. “The main problem is that the price of the feedstocks running the biofuels plants has

increased dramatically, because of increased demand from all of the biofuels plants that have been established worldwide.

“Secondly — and this is localised to Australia — the drought has pushed up dramatically the price of the feedstocks, the tallow and grains that are used as feedstocks for biofuel.”

Another listed stock receiving plenty of attention from climate change-conscious investors is CO2 Australia (CO2, market cap \$167 million), which runs a carbon sequestration program under which CO2 Australia plants mallee trees on agricultural land to sequester carbon and then, based on the plantings, creates NSW greenhouse gas abatement certificates, which are created and traded under the NSW Greenhouse Gas Abatement Scheme. The plantings are long-term (150 years-plus) carbon sinks and the resulting offsets are sold to companies seeking carbon emission offsets.

Paul says the problem for investors has been that the renewable energy sector has been characterised by “a lot of not yet commercialised technologies”.

“Many of these have been proven technologically but not proven to be commercially viable. A lot of people have been burned investing in individual renewable energy stocks because the technology couldn’t be — or hasn’t been — proven out in a commercial sense. For example, we haven’t had a geothermal plant operating for 20 years to show us the true cost of geothermal power.” Paul’s firm has built 16 indices tracking diverse sectors such as alternative energy (eg, natural gas), climate change, renewable energy and uranium, both on ASX and global markets, and put together Australian and global funds based on these.

He says it is vital that retail investors have the opportunity to invest in an indexed approach to these sectors and blend that with some of the more active managed funds that are appearing.

“We want investors to look at whether a renewable energy source is viable over time — whether it generates long-term income returns, as opposed to short-term speculative returns.”

Until now, the funds management world has invested in renewable energy mainly through ethical and socially responsible investment (SRI), but more recently, “sustainable investment” has come to be seen as a discrete subset, with its own set of drivers.

Sustainable investment concentrates on supporting technology, infrastructure and business models that reduce carbon emissions, improve efficiency and conserve natural resources — particularly in sectors such as energy, water and materials — as well as working to cut pollution and reverse existing environmental damage.

Bill Barbour, director and investment specialist at DWS Investments, says that because a lot of the investment opportunities in Australia are at the level of not yet commercialised technologies, investors wanting meaningful exposure to climate change opportunities “have to have a global orientation”.

In October, DWS Investments launched its Global Climate Change Fund, available for a minimum investment of \$25,000. The fund invests in listed companies around the world with profitable business models based on climate change or which have made substantial progress in seeking



environmentally friendly solutions and/or implementing them.

The DWS fund's top 10 holdings are Veolia Environment (France, water services), SolarWorld (Germany, solar energy), Tanfield (Britain, zero-emission commercial vehicles), Umicore (Belgium, catalytic converters), Acciona (Spain, windfarms and waste power), First Solar (US, solar panels), ABB (Switzerland, heavy electrical equipment), Johnson Controls (US, building energy-use optimisation), Gamesa (Spain, wind turbines) and United Technologies (US, hi-tech heating and airconditioning, fuel cells and energy-efficient escalators and elevators).

"We think that investors have to do one of three things regarding climate change," Barbour says.

"One, you can accept that the majority of scientific evidence points to this, monitor further developments in the field and you can invest in companies that are tapped into the investment opportunities arising from the challenges related to climate change.

"Second, you can decide that it's all a crock of you-know-what, and simply ignore the issue. But the third approach, which is quite compelling, is that even if you don't agree with the scientific evidence, it's so obvious now that governments are going to be acting on this, because of the evidence — and they're going to be forcing companies into change. There are investment opportunities if you look for the early-movers that are going to adapt to this trend. These are the companies that will benefit from climate change."

Earlier in the year, Macquarie launched a Renewable Energy Trust as part of its Reflexion family of funds. The fund, capital protected at maturity, invests in the price performance of the Merrill Lynch Renewable Energy Index, an index launched in November 2006 to track a selection of stocks in each of the three largest and most liquid renewable energy sub-sectors, namely biofuels, solar energy and wind power.

The stocks must be listed on a stock exchange in a developed market and must be capitalised at \$US1 billion or more. The index has a 46.8 per cent weighting to solar energy stocks, 39 per cent to wind power stocks and 14.2 per cent to biofuel stocks.

But Anthony Serhan, head of investment research at Morningstar, sounds a note of caution on investments built around these themes.

"There is an element of fad to this. We see some similarities with the telco-media-technology (TMT) funds that we saw towards the end of the tech boom, in that some of these vehicles have been constructed to capture a theme and aren't necessarily going to be good investments.

"The funds that say 'we target climate change' are by definition operating in a narrower part of the market than a 'sustainable' fund or an SRI fund. They're not as diversified and they have the potential to be quite volatile.

"My tip would be to look at the funds that have a broader 'sustainability' focus and are prepared to look at some sustainability measures as part of the investment process."

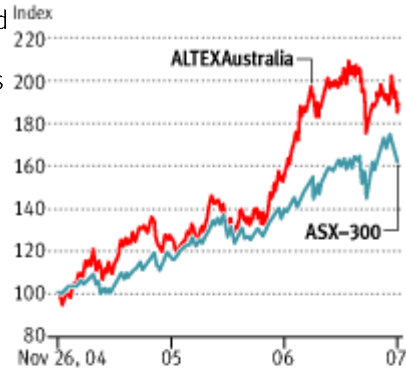


Hot rock: Christian Jensen says geothermal will be important in the energy mix but that companies are a long way from production Picture: James Croucher



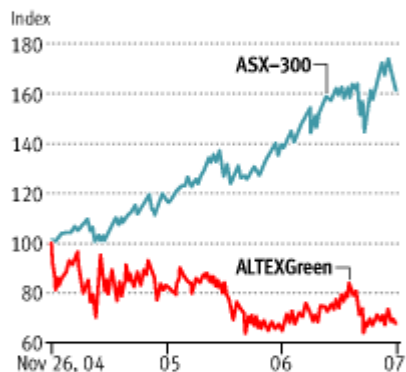
Going green local

ALTEXAustralia Index: Launched in October 2006, the index includes 90 ASX-listed securities in alternative energy with a combined market capitalisation of more than \$49.4 billion. The three largest holdings in the index are Origin Energy, AGL Energy and SP AusNet. Stocks include those in production, transmission and distribution.



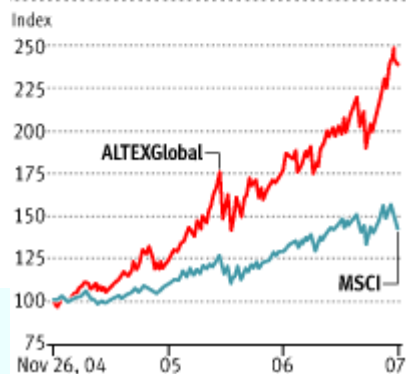
Going green renewable

ALTEXGreen index: Includes stocks in renewable energy including wind, hydro and solar and has been underperforming the broader Australian share market.



Going green global

ALTEXGlobal Index: Begun in June 2007, the index includes 130 globally-listed securities with a combined market capitalisation of more than US\$1.5 trillion.



Source: ALTEXAustralia