



Recommendation **Speculative Buy**

Price **\$1.90**
Target (12 mths) **\$4.50**

Expected Return
Capital growth 137.0%
Dividend yield 0.0%
Total expected return 137.0%

Company Data and Ratios
Enterprise value \$342m
Market cap (fully diluted) \$330m
Issued capital 133m
Free float 66%
12 month price range 1.65-3.95
GICS sector Materials

Disclaimer and disclosures
This report must be read with the disclaimer and disclosures on page 14 that form part of it.

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White Energy Company (WEC)

Fuelling the future

- ◆ Superior technology upgrades coal from low to high quality
- ◆ Massive global market opportunity with significant margins
- ◆ Strategic partnerships with major coal producers
- ◆ Initiating coverage with a Speculative Buy and \$4.50 target

Thermal coal arbitrage

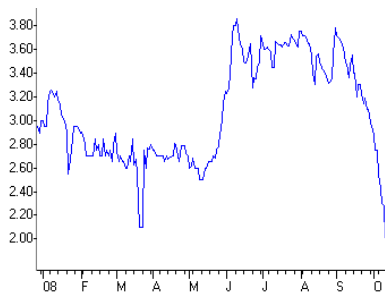
White Energy Company is the exclusive worldwide license holder of the patented White Coal Technology, a mechanical process which uses drying and briquetting to convert poor quality coal into a higher value, cleaner product. The low cost process allows WEC and its partners to take advantage of the price differential between low and high quality coals.

Global footprint established. White Energy has reached agreements with major coal producers globally to commercialise the technology. A 1Mtpa plant is under construction in Indonesia in a JV with Bayan Resources (WEC 51%). An agreement has also been reached to build 1Mtpa plants in partnership with Adaro/Itochu in Indonesia, Datang in China, and NRG/Buckskin in the US. All partners have expressed interest in growing capacity rapidly beyond the initial level. BHP Billiton has secured the global marketing rights to the product sold on the export market.

Win/Win partnerships. Coal demand is rising rapidly as it is cheaper and more abundant than other fuels. However increasing regulation means coal needs to be cleaner to be viable, so there is a massive market opportunity for White Coal. At the same time there is a clear economic benefit. The current price differential between low and high quality coal in Indonesia is ~US\$90/t, and at a cost of US\$35/t to process, the profit of US\$55/t provides a payback of less than one year on the initial outlay of US\$45/t, which is compelling economics.

Commissioning of the first full scale plant to drive re-rating. Our price target of \$4.50 is based on our 12 mth DCF valuation which includes a 1Mtpa plant for Bayan, Adaro/Itochu and NRG/Buckskin. The Bayan plant is due to be in full production by September 2009, and is expected to be a key catalyst for the stock over the next 12 months. However in the medium term, we expect further agreements to be signed, and expansions to be undertaken, which would see the company transform into a substantial growth stock with a possible upside valuation in excess of \$15/share.

Absolute price



Earnings Forecasts

Year end June 30	2008a	2009f	2010f	2011f
NPAT (reported) (A\$m)	-15.0	14.9	56.3	178.9
NPAT (adjusted) (A\$m)	-15.0	14.9	56.3	178.9
EPS (adjusted) (cps)	-1.2	7.7	29.1	89.6
EPS growth (%)	na	na	276.4	208.5
PER (x)	na	na	6.5	2.1
P/CFPS (x)	na	na	7.9	2.7
EV/EBITDA (x)	na	15.5	4.4	0.8
Dividend (¢ps)	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0
ROE (%)	-21.1	8.0	23.2	41.6

Source: Iress

Source: SCEQ estimates

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Investment Case

The world needs cleaner coal

Demand for thermal coal continues to rise

Global energy demand is forecast to more than double by 2050, with more than two thirds of this increase coming from developing countries. Fossil fuels will continue to dominate energy consumption; still meeting around 80% of energy needs in 2030, of which coal will meet >25%.

There is enormous support for clean coal technologies

A high proportion of global coal resources are of coals which are less efficient for power generation. Regulation is also decreasing the ability to use coals with high impurities such as sulphur as this is damaging to the environment. However, the coal industry believes these challenges can be overcome by commercialising clean coal technologies, many of which already exist, with the ultimate aim of achieving zero emissions. A commercially viable clean coal solution is likely to be supported by the coal industry as it could have the potential to underpin the future of the industry.

White Coal Technology provides a superior solution

Why not upgrade low quality coal?

White Energy has developed a technology which can convert low grade coal into higher grade export quality coal. The technology has the potential to unlock large resources of coal which are lower in impurities, but uneconomic due to the lower efficiency. The technology therefore has a large market, and is highly beneficial to its customers.

It sounds simple, but only White Energy has worked out how.

There are other competing technologies in the coal upgrading space, but the benefits of the White Coal Technology are that it is primarily a mechanical process which is cheaper than alternatives, and that the key properties of the product coal make it more efficient.

Coal majors have already seen the opportunity and signed up

Partners include BHP Billiton, Bayan, Adaro/Itochu, NRG/Buckskin

The technology would best be applied to an existing coal producing region where there are large resources of lower quality coal. White Energy has already signed up partners in Indonesia, the US and China in regions which meet these criteria. The first 1Mtpa commercial plant is under construction in Indonesia under a JV agreement with Bayan Resources. Discussions are also underway with Adaro/Itochu in Indonesia, Datang in China, and NRG/Buckskin in the US to build similar plants. Each plant is expected to have an initial 1Mtpa capacity, and increase overtime.

Compelling Economics

< 1 year payback on each plant

Due to the differing energy efficiencies, and supply/demand dynamics for low and high quality coals, there has always existed a significant price differential between the two coals. In Indonesia the differential is currently ~US\$90/t, so with average costs for conversion of US\$35/t, and capital for a plant of US\$45/t, the payback period is less than one year. Our valuation for White Energy is A\$3.75 now, and A\$4.57 in 12 months, assuming three 1Mtpa plants are built over the next three years; two in Indonesia, and one in the US. **This is conservative compared to the company's expectations that there is potential for 14Mtpa of installed capacity globally by 2011. Under this scenario our valuation increases to \$17.95.**

Potential company expectations of 14Mtpa: gives a valuation of \$17.95

Key Catalysts

1st White Coal sold in 2009

Over the next 12 months we expect the Bayan plant to reach full production capacity, construction to commence on the Adaro/Itochu and NRG/Buckskin plants, and agreements with new customers to be signed.

Not without risk

Need to capitalise on first mover advantage

We believe the key risks are access to funding, and protection of IP. We believe White Energy needs to raise at least \$100m to fund their share of capex for the first 3 commercial plants, and this was flagged at the recent result. The process is protected by patents, but we acknowledge that this does not guarantee that competitors will not emerge. We agree that the best defence is to establish a global network of partners quickly, and this is already underway. We believe the process should remain economic even if thermal coal prices fall to long term averages.



Fuelling the future

The world needs coal

Global energy demand is forecast to double by 2050

Over the last ten years, world primary energy demand has risen by over 20% and this upward trend is set to continue. Global economic growth, the primary driver of energy demand, is forecast to average 3.4% per annum between now and 2030, and the global population is expected to reach over 8 billion by 2030 from its current level of 6.7 billion. Global energy demand is forecast to more than double by 2050, with more than two thirds of this increase coming from developing countries.

To power economic growth we will have to burn coal

Fossil fuels will continue to dominate energy consumption, still meeting around 80% of energy needs in 2030, of which coal will meet over 25%. Coal is expected to remain the most important fuel for power generation across both developed and developing economies. This is because it is affordable, reliable, abundantly available, geographically well-distributed in politically stable regions, and easy and safe to transport. Nuclear and renewable sources will be important but they will not fill the gap.

Coal also needs to be cleaner to be viable

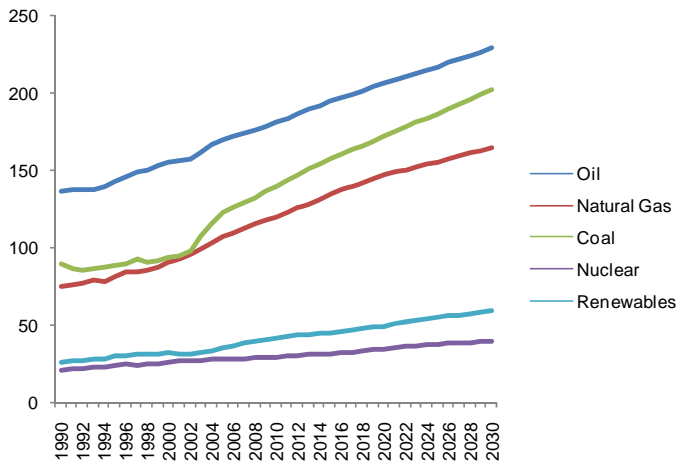
Regulation is increasing to reduce the negative environmental impacts of burning coal, which include the release of pollutants such as oxides of sulphur and nitrogen, and greenhouse gas emissions including CO₂ and methane. However the coal industry believes this challenge can be overcome by commercialising clean coal technologies, many of which already exist, with the ultimate aim of achieving zero emissions. The technologies being investigated span the whole coal supply chain, including

- Increasingly energy-efficient mining operations
- Utilising coal-seam methane to prevent its release to the atmosphere
- Improved coal preparation
- Advances in power-station efficiency
- Using coal by-products and wastes
- Linking coal and renewable energy technologies
- Capture and storage of carbon dioxide

Massive market opportunity

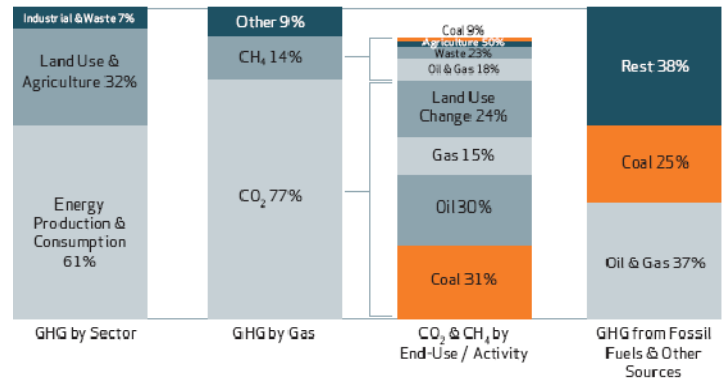
A commercially viable clean coal solution in any of the above categories is likely to be supported by the coal industry as it could have the potential to underpin the future of the industry.

Figure 1 –Energy use by fuel type projections (Quadrillion Btu)



Source: EIA

Figure 2 – Sources of greenhouse gas emissions



Source: World Coal Institute



Thermal coal arbitrage

Coals aint coals

There are many different types of coal. Coal is formed from buried plant matter. The longer the coal has been buried, the greater the depth becomes, increasing the temperature and pressure, and therefore the hardness and energy content of the coal. Figure 3 shows the full spectrum of coals. Young coals such as lignite have a high moisture content and low energy content, and are typically lower in impurities. These qualities reverse for older coals such as anthracite. The value of the coal increases with energy content across the spectrum. In Australia we produce large volumes of the higher energy content bituminous coals for export. Lower energy content sub-bituminous coals and lignites (brown coal) are typically used for domestic power generation as they are sub-economic for export.

Older coals are more efficient

The price differential

Coals are priced according to their energy content, and relative supply demand fundamentals. There has always existed a significant price differential between coals with low and high energy contents. Coal with high moisture content is less efficient to burn and is priced accordingly. Recently the price differential blew out to >US\$100/t as demand for high energy coal from Asia increased, and supply has been restricted, largely due to infrastructure constraints.

More efficient coals get a higher price.....

The trade off between high efficiency and low impurities

Adding to the complexity of the coal spectrum, the coals that have the highest energy contents, are often those with the highest impurities, such as sulphur. It is therefore difficult to find coals that are both economically efficient, and environmentally friendly.

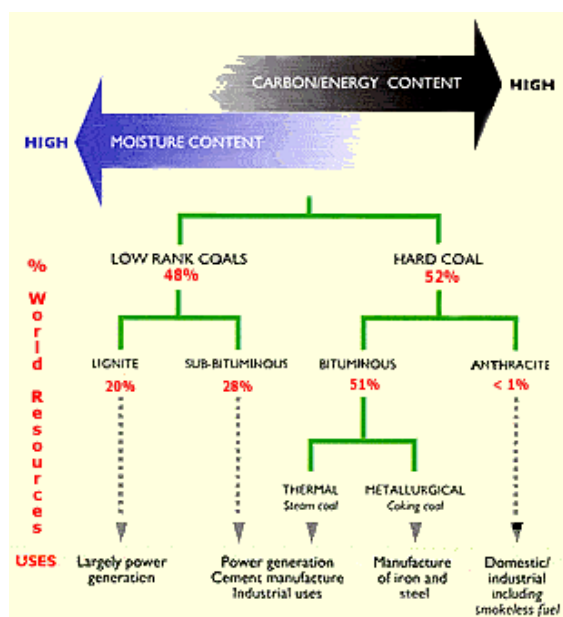
.....but are often higher in impurities

Opportunity to capture significant margins

The difference between coals at each end of the spectrum is related to the water content, so if you could easily remove the water, you can take advantage of the price differential, and provide a viable market for low rank, low impurity coals. While this sounds simple, taking advantage of this opportunity has eluded the coal industry for over 100 years. The problem is that dried out coal is subject to spontaneous combustion, so in trying to solve one issue, another was created.

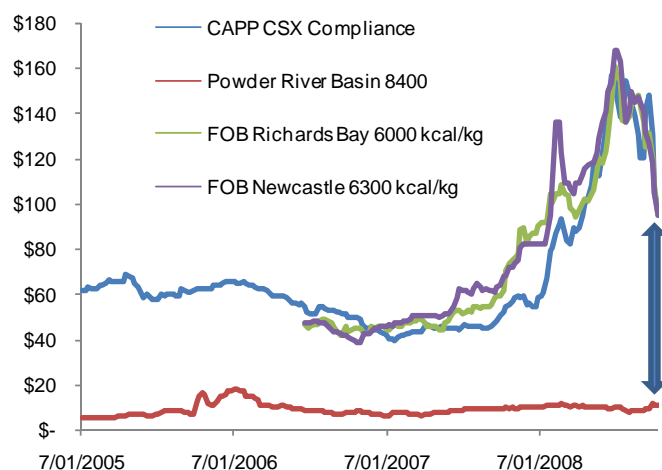
Dry the coal and capture the price differential

Figure 3 – The coal spectrum



Source: Australian Coal Association

Figure 4 – Pricing differential



Source: White Energy Company



The White Energy Solution

White Energy has developed a new technology which upgrades low energy coal to a high energy product through a low cost production process. The benefit of the process is that the product coal is cleaner and more efficient, reducing several environmental issues for thermal coal producers. At the same time the technology takes advantage of the differential between sub-bituminous and bituminous coal prices. White Coal Technology is one of few clean coal technologies soon to be commercial, and is likely to be well supported by the coal industry.

Primarily a mechanical process

The technology involves a mechanical process which crushes and dries low quality coal, removing the moisture. The dry coal is compacted into briquettes which can be safely transported without spontaneous combustion, in the same way as traditional coal. The product has a higher energy content, but remains low in impurities.

Over 10 years of R&D

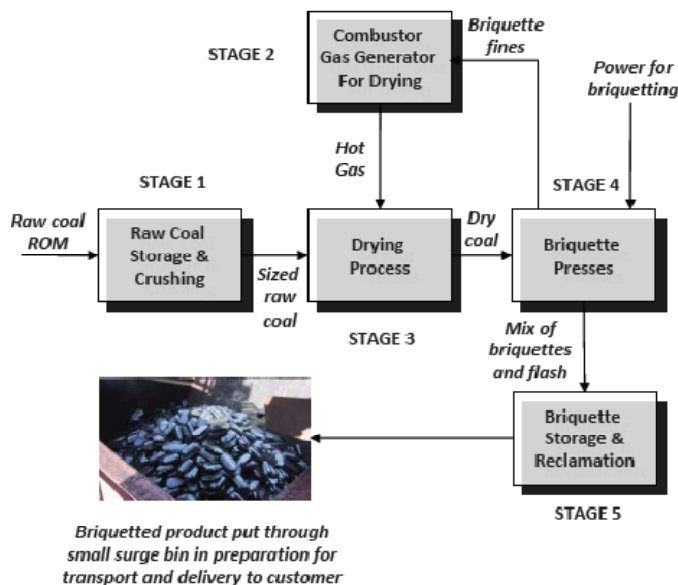
The White Coal Technology was developed by the CSIRO in conjunction with experts in briquetting technology (KR Komarek) and drying (TraDet Inc.). The development has progressed through lab scale work at the CSIRO, and several pilot plants, a 0.2tph plant at the CSIRO, a 3tph plant in the US, and a 10tph plant in Collie WA, over 10 years. Binderless Coal Briquetting Company (BCBC) acquired the exclusive global rights to the technology in 2005 and is a subsidiary of the White Energy Group. To date 20kt of coal has been tested throughout these trials.

Commercial scale demonstration plant in production

WEC has built a 90ktpa commercial scale demonstration plant at Cessnock, NSW. The purpose of the plant is to demonstrate the technology on a large scale, allow customers to trial their coal before committing to their own plant, and allow further R&D and training. SCE visited the plant in May 2008 during the commissioning phase, and the plant is now fully operational. The plant is currently testing Adaro/Itochu coal in conjunction with the final design for its plant, and has successfully tested La Trobe Valley brown coal which is a further development opportunity.

The Cessnock plant was partly funded by a Commonwealth Government grant supporting clean coal technologies.

Figure 5 – The White Coal Technology



Source: White Energy Company

Figure 6 – The Cessnock production plant



Source: White Energy Company



Superior clean coal technology

Benefits of the technology

Higher energy content The process increases the useable energy content of the coal by between 30% and 200%, creating valuable power generation efficiencies. Figure 8 shows that the product compares favourably with export quality coal.

Mechanical process The mechanical process is designed to work at coal mines. Competitors use a chemical process which increases complexity, hazards and costs.

Low upgrading costs The favourable conversion economics allows the product to compete with bituminous coals. Costs are on average US\$35/t, which includes feed coal / operating costs and transportation, compared to the price differential of ~US\$90/t.

Lower spontaneous combustion risk Upgraded coal is physically and chemically stable, and can be handled, stored and transported as normal coal.

Lower transportation costs The process reduces moisture, resulting in up to a 30% decrease in load volumes and which translates into lower transportation costs.

Reduced greenhouse gas and pollutant emissions The coal burns more efficiently which results in lower emissions. The coal has also retained the low impurity characteristics typical of low rank coals. Figure 8 shows that SOx, NOx, and ash are lower than typical bituminous coal.

Reduced levels of dust The briquettes are less dusty than raw coal. Coal dust creates significant environmental and maintenance issues, which in turn cause logistical problems and add to the cost of transporting coal.

Competitive advantage

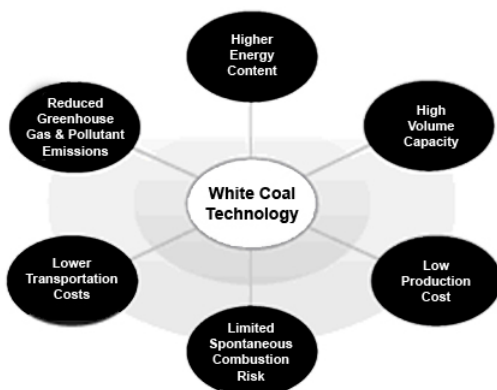
Drying and briquetting of coal has been around for over one hundred years. However it has not been successfully applied to sub-bituminous coals, as the product of previous attempts was unstable and subject to spontaneous combustion. Other issues have included high costs, insufficient energy gains and adverse environmental impacts. The breakthrough for WEC has been perfecting the briquetting process such that the individual coal grains are bound tightly to each other, eliminating the voids, and increasing the stability of the briquettes, and in turn decreasing the risk of spontaneous combustion.

There are other technologies available for coal upgrading, but the WEC technology is more favourable due to its mechanical design which reduces the cost. Evergreen Energy is trialling the K-Fuel process, however it involves high temperatures and pressures, increasing the capital cost, and the product is not as stable. The Japan Coal Energy Centre is trialling the Upgraded Brown Coal Technology, but again this is a chemical process, consuming oil, which increases capital and operating costs, and the requirement to add a chemical binder reduces energy efficiency.

WEC has resolved issues with the process

Other solutions involve chemical processes which increase costs

Figure 7 – Benefits of the White Coal Technology



Source: White Energy Company

Figure 8 – Coal quality comparison

Sub-bituminous coal upgraded by White Energy compares very favorably with higher priced bituminous coal.

Parameter	Sub-bituminous Coal	White Energy Upgraded Coal	Australian Bituminous Coal 14% ash
Boiler Efficiency (%)	85.3	89.4	89.5
Parasitic Load (%)	6.4	5.7	5.9
Overall Efficiency (%)	34.1	36.3	36.1
NOx (mg/Nm ³)	284	280	454
SOx (mg/Nm ³)	223	169	1404
Ash Generation (Kg/MWh)	21.3	17.3	57.6

Source: BHP Billiton 2007

Source: White Energy Company



Commercialisation Strategy

The technology would best be applied to an existing coal producing region where there are large resources of lower quality coal. Figure 9 highlights the key countries that fall into these categories. White Energy has assessed these opportunities and chosen to initially pursue commercialisation options in Indonesia, China and the US. Indonesia is a key growth region for meeting Asia's growing coal demand. The US is the largest producer of low rank coal. WEC is now actively reviewing a number of other business development opportunities globally.

Existing Customers

Bayan Resources (Indonesia) WEC is currently building its first 1Mtpa plant at the Tabang coal mine in Indonesia in partnership with Bayan, one of Indonesia's largest coal producers. Bayan agreed to acquire up to 1.5Mtpa from the JV for four years after production commences representing over US\$250m in revenue, which underpins the first project. Bayan would like to increase production to 5Mtpa, which is achievable by adding successive 1Mtpa modules. The plant is 75% complete, and due to be commissioned in CQ109, and at full production in September 2009.

Adaro Group/Itochu Corporation (Indonesia) WEC is preparing to test significant quantities of Adaro coal at the Cessnock production plant in Q408. Subject to satisfactory results, Adaro/Itochu is looking to build a 1Mtpa plant at its East Kalimantan mine, commencing in 2009, and has expressed interest in increasing capacity up to 8Mtpa.

Datang International Power (China) Subject to a financial feasibility study, WEC is negotiating a structure and commercial terms for a JV with Datang to build the first of up to 10, 1Mtpa plants at Datang's sub-bituminous coal mine in Inner Mongolia.

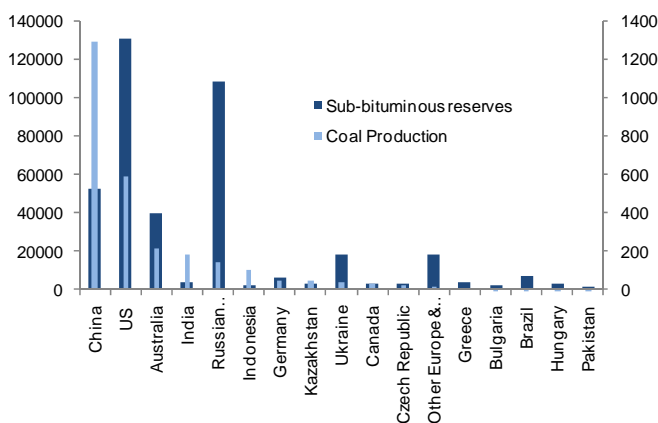
NRG/Buckskin(USA) A development agreement has been signed with NRG Energy and Buckskin Mining Company (Kiewit Corporation). A feasibility study was successful, and WEC is negotiating a contract to build a 1Mtpa plant at the Buckskin mine in Gillette, Wyoming in the Powder River Basin, and if successful, expand capacity to 8Mtpa.

Strategic alliances with suppliers

BHP Billiton (Global) BHP Billiton has agreed to provide US\$35m in funding through a convertible note issue. In conjunction with this note issue, BHP secured the global marketing rights for briquettes sold on the export market, which would be applicable to the Indonesian projects outside of Bayan. WEC and BHP have also agreed to look for joint development opportunities.

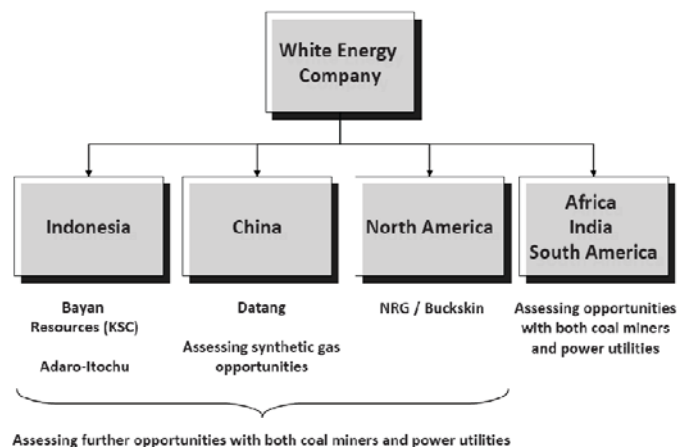
Thiess (Indonesia) WEC has entered into a strategic alliance with Thiess which will provide design and construct services for the plants to be built in Indonesia.

Figure 9 – Who's who in coal – Production & Reserves (Mt)



Source: BP

Figure 10 – Global footprint



Source: White Energy Company



Compelling economics

Payback of less than one year on each plant

WEC has provided an example of typical economics for a 1Mtpa module under a JV structure. The example in Figure 11 assumes that at the current coal price of ~US\$100/t there is an annual return of ~US\$37/t, so the payback on an initial outlay of US\$22.95/t is less than one year.

We have modelled a base case scenario assuming that a 1Mtpa plant is built for each of the three partners, Bayan, Adaro/Itochu and NRG/Buckskin, based on the production profile shown in Figure 13. We have used similar parameters to those shown in the example, although adjustments have been made for each specific case, notably there is no JV structure for Buckskin. Our DCF suggests a valuation for WEC of \$3.75, on this conservative basis.

Our modelling also suggests that WEC could be generating an EBITDA of A\$84m by 2010 and A\$264m by 2011, and a profit of A\$56m and A\$179m in 2010 and 2011.

Price Target

Price Target \$4.50

We have set a price target of \$4.50, reflecting our 12 month valuation. A key catalyst to drive the stock to this level should be successful funding in the next 6 months, and the start-up of the Bayan plant in 2009.

Figure 11 – Simple economics

Standard Indonesian JV – Illustrative 51% Ownership Example		JV Returns US \$ / Tonne	WEC Returns US \$ / Tonne
Revenue			
Selling value upgraded coal *	\$100.00		
Costs			
Input cost feedstock per upgraded tonne	\$12.90		
Processing cost	\$6.00		
Core plant capital & site prep cost	\$2.25		
Handling / transport / maintenance	\$14.00		
Royalties, license and plant O&M fees	\$9.00	100 %	\$9.00
JV profit	\$55.85	51 %	\$28.48
Total WEC returns			\$37.48
WEC Capital Cost US \$ / Tonne			
JV plant capex / related site infrastructure (one-off)	\$45.0	51 %	\$22.95

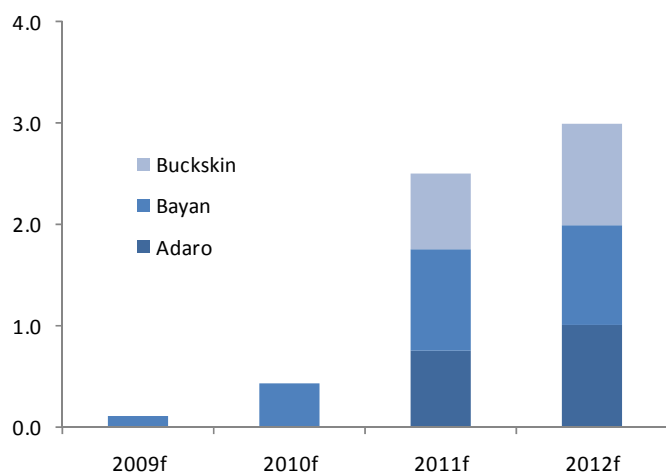
Source: White Energy Company

Figure 12 – WEC Valuation A\$

	\$M	Now	+1yr	+2yr
WEC				
Adaro	197	1.13	1.30	1.55
Bayan	190	1.09	1.31	1.29
Buckskin	255	1.46	1.80	2.36
Corporate	-106	-0.61	-0.60	-0.59
Other	100	0.57	0.57	0.57
Options	29	0.17	0.17	0.17
Cash	-11	-0.06	0.01	-0.20
Total	653	3.75	4.57	5.15

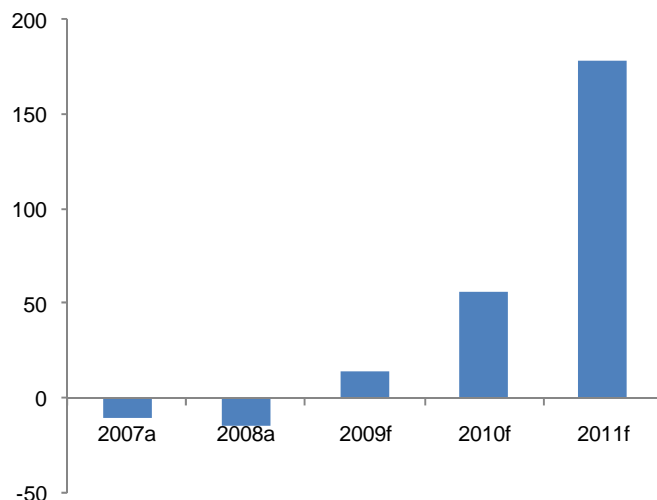
Source: SCE estimates

Figure 13 – Base Case Production Profile (Mt)



Source: SCE estimates

Figure 14 – Forecast profit (A\$m)



Source: SCE estimates



Valuation sensitivities

Considerable production upside

In our base case modelling we believe we have been conservative by including only the projects that are highly likely to go ahead. In reality, each partner has expressed interest in adding further capacity, Bayan to 5Mtpa, Adaro/Itochu and NRG/Buckskin to 8Mt, and Datang to 10Mtpa, a total of 31Mtpa. At the same time WEC is in discussion with other potential partners, which could raise production further.

Upside case valuation of \$15.82

WEC is confident that production could reach 14Mtpa in the next 3 years. Under this production profile (Figure 15) our valuation increases significantly to \$15.82. Should the existing partners eventually reach the requested capacity target of 31Mt, the valuation would increase even further.

Remains profitable at long term coal prices

We have used our export thermal coal price series forecast in our model for export sales price. We are expecting this to average US\$136/t in 2009, falling to a long term assumption of US\$80/t in 2016. The current spot price for thermal coal is ~US\$100/t, and the market is concerned that given a global slow down, the thermal coal price may fall further.

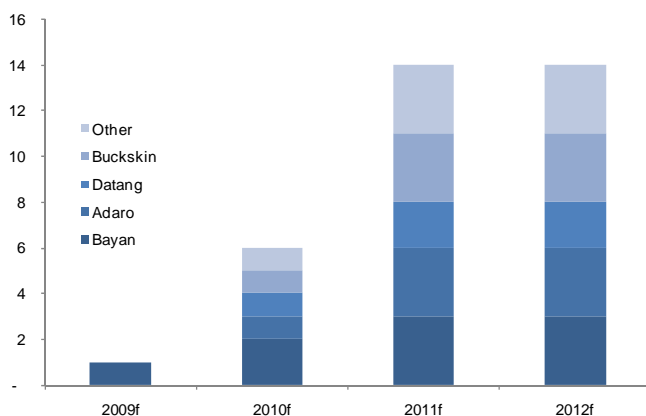
Even if the export coal price falls below our long term price, we believe a plant would remain profitable, as the price differential to sub-bituminous coal would still exist. If we were to adjust the economics of Figure 11, at a US\$60/t sales price a plant would still make a pre-tax profit of US\$25/t.

If we were to assume a worst case thermal export coal price of US\$50/t forever, our base case valuation falls to \$2.43, and our upside case falls to \$9.46.

Capex

A module is expected to cost US\$45m in Indonesia or US\$75m in the US. According to the economics in Figure 11, at a cost of US\$45m, the payback period is less than one year. Hence even if capital costs double, the payback period remains less than 2 years.

Figure 15 – Realistic production profile (Mt)



Source: SCE estimates

Figure 16 – WEC valuation using new production profile

	\$M	Now	+1yr	+2yr
WEC				
Adaro 3Mt	514	2.95	3.31	3.76
Bayan 3Mt	516	2.97	3.37	3.86
Buckskin 3Mt	841	4.83	5.51	6.44
Datang 2Mt	355	2.04	2.31	2.65
New partner 3Mt	514	2.95	3.31	3.76
Corporate	-106	-0.61	-0.60	-0.59
Other	100	0.57	0.57	0.57
Options	29	0.17	0.17	0.17
Cash	-11	-0.06	0.01	-0.20
Total	2752	15.82	17.95	20.41

Source: SCE estimates



Financing

Cash on hand was A\$35m at June 30 2008, with access to a further US\$25m under the BHPB financing facility. Current borrowings are A\$47.4m in the form of convertible notes.

Additional funding required to complete capex programs

With a substantial capex program on the agenda for completion of the Bayan facility, and construction of the Adaro and Buckskin facilities, we estimate that WEC will need to raise at least an additional \$100m over the next 12 months to bridge the funding gap. WEC highlighted in the recent results presentation the need to raise sufficient capital to meet near term objectives through a combination of equity market raising and debt financing at a project level.

Given that gearing is already 15%, we would assume that the most appropriate form of funding would be through equity. If we were to assume \$100m was raised, this would bridge the funding gap and strengthen the balance sheet.

Equity

In August 2006 White Energy raised A\$23.024m (23,983,333 at A\$0.96) through a private placement of new shares.

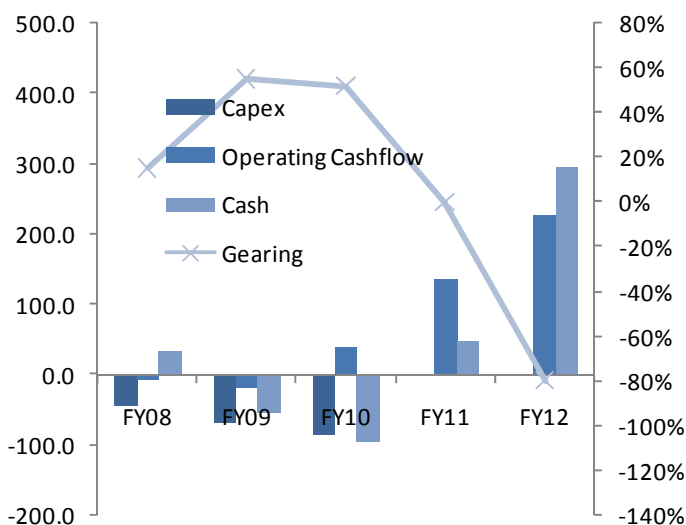
There are currently 133m shares on issue. In addition there are 40m options, and assuming the convertible note holders all convert, the fully diluted shares are 186.7m assuming current prices.

Convertible Notes

White Energy raised A\$45m in October 2007 through a convertible notes issue. The notes are unsecured with an annual yield of 7.9% maturing in October 2012. Notes are convertible into ordinary shares at \$3.44, and note holders can redeem some or all of their notes at the end of the third year. Given the current price is \$1.90, we assume at this time these notes don't convert; but by 2012 WEC shares could well be above \$5.00 on our valuation metrics.

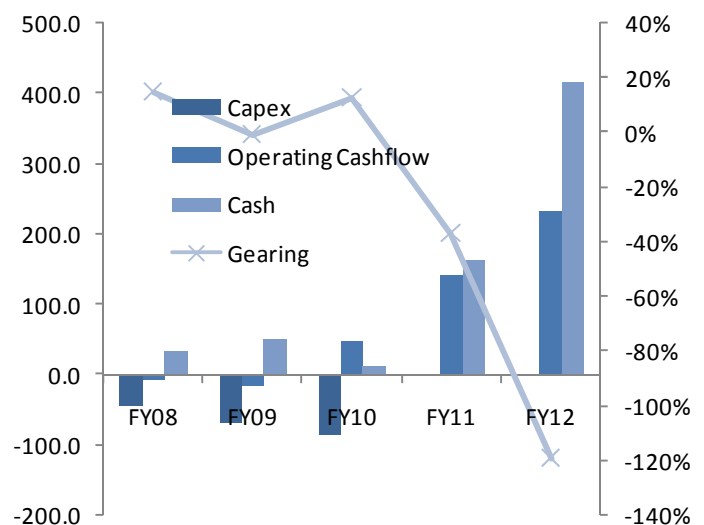
In December 2007 White Energy finalised a US\$35m 7-year funding package with BHP Billiton. US\$10m was drawn down in February. Of this amount US\$7.5m was converted to ordinary shares on 23 September 2008 at \$2.83, and BHP now owns 2.43% of WEC, and the shares are in escrow for a further 12 months. No interest at 9% or principle payments are required for the first 4 years of the facility, however the terms provided for a further US\$12.5m to be converted into ordinary shares over the next 4 years.

Figure 17 – Cashflow A\$m – assumes no further funding



Source: SCE estimates

Figure 18 - Cashflow A\$m – assumes \$100m raised through equity



Source: SCE estimates



Risks

Protection of Intellectual Property

White Energy has patent protection over the drying and briquetting (mechanical) technology which is valid for another 16 years. However we do acknowledge that this does not provide guaranteed protection over intellectual property. Given that the company took at least 6 years of R&D to develop the technology, we believe it has a five year window in which to establish the White Coal Technology in the market place before competitors may emerge. Capitalising quickly on the first mover advantage should be the best defence.

Funding

White Energy has highlighted the need for further funding, and in the current risk adverse markets, this could be a key reason for the recent share price weakness. However we believe with a compelling business case, and the support of other large corporates, this should create several funding options.

Technology

We believe the process risks are minimal given that a 90kt commercial scale plant is already operating in Cessnock and this is representative of the design and construction of a full scale plant. The upsize to a 1Mtpa plant involves adding a larger number of discrete briquetting units in parallel. An assessment by Sinclair Knight Mertz concluded that there would be no “in principle” scalability issues. The modular design enables rapid scalability to capacities larger than 1Mtpa.

Altering the coal supply/demand dynamics

We have considered the possibility that the introduction of the White Coal Technology may alter the market dynamics such that the price differential closes and the arbitrage opportunity no longer exists. The size of the seaborne thermal coal market is currently ~700Mt, hence the planned 14Mt capacity should have a minimal impact on the supply dynamics and prices. Product from the US plant is for the domestic market.

Figure 19 – Seaborne thermal coal supply/demand dynamics

	2008E	2009E	2010E	2011E	2012E
Global Demand (Mt)	695	715	737	760	785
Europe (incl. CIS)	213	218	223	228	233
Japan	126	128	131	133	135
South Korea	70	73	75	78	81
China (incl. HK)	60	64	69	73	78
Taiwan	59	60	61	62	64
Others	168	173	179	186	195
Global Supply (Mt)	677	704	721	744	779
Indonesia	184	193	198	203	212
Australia	127	135	148	163	186
Russia	90	93	95	96	98
South Africa	58	57	56	55	54
Others	218	227	224	227	230
Net Surplus/(Deficit)	(18)	(11)	(16)	(16)	(6)
Price (US\$/t FOB, nominal)	115	147	120	107	102

Source: Metalytics

Figure 20 – Bayan plant under construction at the Tabang mine



Source: White Energy Company



Company Information

Offices

White Energy has offices in Sydney, Indonesia, China and the US.

Other assets

White Energy has interests in several exploration assets. We have not discussed the details here as we expect these may be divested over time as the focus is clearly on the coal technology. We have ascribed \$100m to the value of other assets in our DCF valuation.

Share Information

- 133m ordinary shares, 40m unlisted options, 13.1m additional shares if notes converted
- 173.6m shares fully diluted, 186.7 shares fully diluted assumes all notes converted
- White Energy is listed on the ASX (WEC), and ADRs are listed on the OTCQX (WECFY) to provide access to the US markets
- Directors and management hold 34% of current shares outstanding

Board and Management

Mr John Atkinson - Managing Director Mr Atkinson has a legal background and more recently co-founded Hunter Bay Partners Pty Ltd, a boutique investment house. He has been on the board of a number of public and private companies.

Mr Travers Duncan - Executive Director Mr Duncan is a civil engineer with over 30 years of experience in the management of large coal mining and infrastructure development projects in Australia, India, Indonesia and PNG. Mr. Duncan is Chairman of Felix Resources Limited.

Mr John McGuigan - Non-Executive Chairman Mr McGuigan was Executive Chairman of Baker & McKenzie and co-founded Hunter Bay Partners Pty Ltd. Mr McGuigan has been on the board of a number of public and private companies.

Mr Ilyas Khan - Non-Executive Director Mr Khan has a background in finance and is an independent Non-executive Director of London listed Speymill Group Plc and Conister Financial Group Plc, and is a Non-executive Director of Crosby Asset Management Inc.

Keith Clark, Director of Technology Mr. Clark has over 35 years of experience in R&D in coal and mineral processing. Mr. Clark was a Senior Principal Research Scientist with the CSIRO, where he led the R&D program that developed the BCB Technology process.

Darron Hitchings, Director of Operations & Infrastructure Mr. Hitchings is a civil engineer with over 35 years of experience in civil engineering and mining projects. He has held senior management roles in major publicly listed mining and engineering construction companies.

John Langley, Director of Business Development Mr. Langley has over 30 years of experience managing public and private mining and mining technology companies. He is currently Non-Executive Chairman of IFC Capital Limited.

Ivan Maras, Chief Financial Officer Prior to joining White Energy Company Mr Maras was employed by Hunter Bay Partners Pty Ltd., where he managed the company's investments in Krispy Kreme Australia, Jestors Pie Company and Belaroma Coffee Company.

Judith Tanselle, President – North American Operations Ms. Tanselle was previously with JM Energy Advisors LLC, and an Executive Director of New Jersey's NRG Energy where she was responsible for managing their coal emissions procurement and trading activities. She currently serves on the Board for the Coal Trading Association (CTA), is a past member of the NYMEX Coal Advisory Committee and a past President and Director of the Lexington Coal Exchange.



Figure 21 – Financial Summary

White Energy (WEC)						Share price:					1.90	
As at						29-Oct-08	Market Cap:					\$ 330
PROFIT AND LOSS						VALUATION DATA						
Y/e June 30	2007a	2008a	2009f	2010f	2011f	Y/e June 30	2007a	2008a	2009f	2010f	2011f	
Sales revenue	0	0	15	59	182	Net profit adj (\$m)	-10	-15	15	56	179	
EBITDA	-7	-11	21	84	264	EPS (c)	-8	-1	8	29	90	
Depreciation	-3	-4	0	-2	-13	EPS growth (%)	na	na	na	276	209	
EBIT	-10	-14	21	82	257	P/E ratio (x)	na	na	na	7	2	
Net Interest Expense	1	1	1	-2	-2	CFPS (c)	na	na	na	24	71	
Pre-tax profit	-10	-15	21	80	256	Price/CF (x)	na	na	na	8	3	
Tax	0	0	-6	-24	-77	DPS (c)	0	0	0	0	0	
Net Profit	-10	-15	15	56	179	Yield (%)	0	0	0	0	0	
Adjustments	0	0	0	0	0	Franking (%)	0	0	0	0	0	
SCEQ adj profit	-10	-15	15	56	179	EV/EBITDA	na	na	15	4	0.8	
One-off items	0	0	0	0	0	EBITDA margin (%)	na	na	141	142	145	
Reported net profit	-10	-15	15	56	179							
CASHFLOW						Valuation per share:						
Y/e June 30	2007a	2008a	2009f	2010f	2011f	A\$ Target price (12 mth):					3.75	
Receipts from customers	0	2	16	54	163	Total Return (including yield)					4.50	
Payments to suppliers	-3	-10	-26	21	67	PROFITABILITY RATIOS						
Net interest	1	1	1	-2	-2	Y/e June 30	2007a	2008a	2009f	2010f	2011f	
Tax paid	0	0	-7	-24	-77	EBITDA/sales (%)	na	na	141	142	145	
Other	0	0	-1	-4	-10	EBIT/sales (%)	na	na	139	139	141	
Operating cashflow	-1	-8	-17	46	142	Return on assets (%)	-12	-10	6	20	39	
Capex	-9	-43	-69	-84	0	Return on equity (%)	-13	-21	8	23	42	
Investments	0	0	0	0	0	Return on funds empl'd (%)	-17	-18	8	20	57	
Asset sales	0	0	0	0	0	Dividend cover (x)	0	0	0	0	0	
Other	-4	-1	0	0	0	Effective tax rate (%)	0	0	30	30	30	
Investing cashflow	-13	-44	-69	-84	0	LIQUIDITY AND LEVERAGE RATIOS						
Change in borrowings	0	15	0	0	0	Y/e June 30	2007a	2008a	2009f	2010f	2011f	
Equity raised	22	2	100	0	9	Net debt/(cash) (\$m)	-15	12	-2	36	-115	
Dividends paid	0	0	0	0	0	Net debt/equity (%)	-19	18	-1	15	-27	
Other	1	55	0	0	0	Net interest cover (x)	na	na	na	46	171	
Financing cashflow	23	72	100	0	9	Current ratio (x)	2	1	na	-4	-10	
Net change in cash	9	20	14	-37	151	Inventory turnover	0	0	-5	-5	-6	
Cash at end of period	15	35	49	12	163	Inventory/sales	0	0	0	7	6	
BALANCE SHEET						INTERIMS						
Y/e June 30	2007a	2008a	2009f	2010f	2011f	Y/e June 30 (\$m)	2007a	2008a	2009f	2010f	2011f	
Cash	15	35	49	12	163	Sales revenue	0	0	0	25	71	
Receivables	3	5	4	8	28	EBITDA	-2	-4	0	36	103	
Inventories	0	0	1	5	15	Depreciation	-2	-2	0	-1	-2	
Investments	0	0	0	0	0	Amortisation	0	0	0	0	0	
Other	0	0	0	0	0	EBIT	-4	-6	0	35	100	
Current assets	18	40	54	25	205	Other income (expense)	0	0	0	0	0	
PPE	9	52	121	203	196	Net interest	0	0	-1	0	-2	
Investments	0	0	0	0	0	Pre tax profit	-4	-7	-1	35	99	
Intangibles	56	54	54	54	54	Tax	0	0	0	-10	-30	
Other	2	3	3	3	3	Net Profit	-4	-7	-1	24	69	
Non-current assets	67	108	177	259	252	Adjustments	0	0	0	0	0	
Total assets	86	148	231	284	457	SCEQ adj profit	-4	-7	-1	24	69	
Payables	8	30	-2	-6	-20	One-off items	0	0	0	0	0	
Debt	0	47	47	47	47	Reported net profit	-4	-7	-1	24	69	
Provisions	0	0	0	0	0	SEGMENTALS						
Other	0	0	0	0	0	Base Case Production	2007a	2008a	2009f	2010f	2011f	
Total liabilities	8	77	45	42	27	Briquettes						
Shareholders' equity	77	71	186	242	430	Adaro	0.0	0.0	0.0	0.0	0.8	
Minorities	0	0	0	0	0	Bayan	0.0	0.0	0.1	0.4	1.0	
Total shareholders funds	77	71	186	242	430	Buckskin	0.0	0.0	0.0	0.0	0.8	
Total funds employed	62	83	184	278	314	Total (Mt)	0.0	0.0	0.1	0.4	2.5	
W/A diluted shares on issue	118	126	194	194	200	ASSUMPTIONS						
						Y/e June 30	2007a	2008a	2009f	2010f	2011f	
						A\$	0.79	0.89	0.76	0.78	0.77	
						Raw Coal - Indo (US\$/t)	46	46	46	46	46	
						Raw Coal - US (US\$/t)	13	13	13	13	13	
						Product Coal - US (US\$/t)	61	61	61	61	61	
						Thermal (US\$/t)	50	74	136	133	106	

Source: SCE estimates



Recommendation structure

Buy: Expect >15% total return on a 12-month view
Speculative Buy: Expect >30% total return on a 12-month view but carries significantly higher risk than its sector
Fair Value: Expect total return between -15% and +15% on a 12-month view
Sell: Expect <-15% total return on a 12-month view

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Disclosure of Interest

Southern Cross Equities Ltd and its associates hold 2,000,000 options in White Energy Company (WEC) as at the date of this report. This position is subject to change without notice.