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South Africa Keen to Exploit Biofuels Opportunity

THERE is widespread consensus that availability of oil, the key fossil fuel of the last century, is peaking and that production and availability will decline. There is also concern about the political stability of many oil-producing regions, although demand continues to grow.

Based on current use, worldwide oil reserves will be exhausted in less than 60 years, which will affect the economies of developing countries.

Against this background, government has established a biofuels task team to develop an industrial strategy. This led to the publication of a draft biofuels industry strategy by the minerals and energy department in November 2006.

Demetri Pappadopolous, CEO of D1 Oils Africa, which plans to deploy Africa's first commercial biodiesel refinery in SA this year, says: "Issuing the draft biofuels industry strategy is a positive and encouraging step by government that provides a foundation on which to build an economically viable biofuels industry in SA."

The draft strategy is just that though, a draft, and the company would like to see changes made to some of the proposals included in the document.

One of the main issues is the proposed blending rate, which is set at E8 and B5 for 2013. Meeting 75% of the total renewable energy target for 2013 through a 4,5% market penetration in biofuels is potentially viable, but the weighting of biodiesel to a B2 blend compared with bioethanol E8, does not grow the biodiesel industry, he says.

"If one looks at the growth in diesel consumption annually in SA, then by 2013 the country should consume about 11,7bn litres a year, based on a 10-year average.

"Assuming a 2% blend, about 220000 tons of biodiesel will have to be produced to meet this requirement. This quantity does not lend itself to major future growth in SA."

He says another factor is the proposed structure of only offering upliftment on indigenous feedstock. This is not viable as the likelihood of the industry

being able to procure sufficient feedstock to satisfy the market locally is minimal.

This will be of particular importance in the biodiesel sector, as there is no established energy feedstock market. The reality is that at least for the first five years upliftment needs to be applied to imported seed and oil, as this will be needed to ensure supply to the market.

"The proposal to link the pricing of biofuels to the basic fuel price needs to be reviewed.

"The industry needs its own rationale and pricing strategy. For the most part, the biofuels industry will be competing with food for oil supply, and the commodity prices are far from stable. It is clear that the two raw material costs cannot be compared on a litre-for-litre basis, as vegetable-oil costs far exceed those of crude-oil costs.

"The task team needs to look at and put forward new ideas in pricing strategy. The issue of food versus non-food crops and ultimately government's stance on that, needs confirmation.

"The statement made in the strategy is that biofuels supply requires low-cost, high-yield and surplus agricultural production, most of which will not be food crops. This, however, is not supported by the proposal to utilise soya as the main feedstock for biodiesel production," Pappadopoulos says.

"We have adopted the use of Jatropha curcas globally as our primary feedstock of choice. It meets the requirements of being a low-cost, high-yield, non-edible crop that is able to be planted on marginal lands.

"Africa, as a continent, offers one of the greatest potential options for biofuel production, including abundant sunshine, suitable and available land and a moderate climate, all of which contribute to the effective growing of biomass, which is the principle element for biofuel.

"Added to this is the existing agriculture structure and opportunities for small and emerging farmers.

"The establishment of a biofuels industry in SA is not only in the best interests of the South African market,

but will benefit Africa as a whole. We are positive about the potential of the market and will continue to invest our time, funds and energy towards creating a viable biofuels market that benefits both the first and second economies," Pappadopoulos says.

Commentary

At this juncture it is important to look at feedstock for biofuels and whether it is used as food. This is much more obvious in Africa where using Maize for ethanol while people starve is a possibility.

As a rule feedstock for biofuels should be non food crops. After all we use fuel to create food and therefore food is higher up the chain. Does it make sense long term to use food for fuel?

Also at risk in the South African environment is the fluctuation in crop size due to recent heat and drought. So much so that a 1mt surplus is now a 2mt import requirement!

PFSI Uncertainties Damage Investment

On the issue of the PFSI initiative of the New Zealand Government, Carbon Monitor reader Mr M Cambridge writes:

Until October 2002 the New Zealand Ministry of Agriculture and Forestry (MAF) had been promoting forestry as a sustainable land use which could earn carbon credits after 2008. A meeting in Nelson in 2000, organized by Maf which showed farmers how to gain from carbon stored after 2008, and how to manage harvest liabilities.

They used the examples of Mr Pine and Mr Douglas to illustrate how to manage carbon sequestration. Based on this information, I planted 140 hectares of my clear farm land during 2000 plus another 10 hectares in 2001 and 10 hectares in July 2002. These trees were planted at 1,000 trees per hectare with no intention of pruning and only minimal thinning. I expected them to be storing 5,000 tons of CO₂ per year after 2008. This was expected to provide a reasonable income from CO₂ storage even though the potential harvest returns were doubtful.

In October 2002 Maf's Kyoto policy took a major flip flop with the announcement that the Govt would retain all carbon credits with no rewards for anyone planting trees after 1990. This meant that instead of trees adding value to farm land, trees actually reduced the value of that land. Many thousands of hectares of trees have since been cleared around New Zealand.

I have started clearing the trees from my 2002 planting. This can be done relatively easily with a small chainsaw at 300 trees per hour. The trees

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planted in 2000 are much bigger and will be much more expensive to clear. Maf's flip-flops have cost me dearly as I have spent \$100,000 in planting the trees and it will cost me around \$50,000 to clear them again. The very least that Maf could do is pay for removing the trees so that the land could be returned to its clear land value. The sensible alternative of course is for Maf to return to pre 2002 policy.

Maf should consider clearing these trees before the end of 2007 because by then they would contain 25,000 tons of CO₂ which would then become a NZ Government liability.

Owners of Kyoto forests have been assured that there will be no harvest or deforestation liability for their forests. However there will be over 600,000 hectares of Kyoto forest due for harvest after 2017. If the Govt owns the carbon in these forests it will want to manage its potentially huge harvest liabilities. Kyoto forest owners will then be presented with options similar to the four offered to pre-1990 forest owners under Pillar 2 of the current discussion document. A likely scenario would be to use the Resource Management Act to make Kyoto forest harvesting more difficult and unprofitable. Lack of trust in Govt policy is likely to lead to many Kyoto forest owners harvesting early. This will limit the value of Kyoto forests for reducing New Zealand's net GHG emissions from 2008-2012.

Holcim Proposes Structure of NZ Emissions Trading

As a company in an energy intensive business, Holcim recognises the need to reduce global greenhouse gas emissions and energy consumption while fostering economic and social development.

In mid 2006, Holcim made a commitment to the New Zealand government to identify, in detail, emissions trading design elements that would be appropriate for New Zealand, taking into account the wide international experience already gathered by the Holcim Group in the European Union Emissions Trading Scheme (EU ETS) and elsewhere.

Based on the assessment of emissions trading system design and international experience, with specific focus on the energy intensive industry sector, Holcim draws some clear conclusions on appropriate future policy for New Zealand.

For the "transitional" period up to 2012, Holcim recommends:

- That mandatory reporting of greenhouse gas emissions is introduced for all sectors likely to be incorporated in a future New Zealand Emissions Trading System (NZ ETS). Reporting should be to agreed international standards, taking into account



guidance from government officials on New Zealand specific issues. Reporting should be on a calendar year basis in line with international ETS trading periods.

- That government introduces a Voluntary Agreement scheme for those sectors that are likely to be included in a future NZ ETS.

For the period from 2012, Holcim recommends:

- That government introduces a broad based emissions trading system.
- That for the energy intensive industrial sector:
- Gratis allocation be employed;
- Historical emissions ('grandparenting') not be used as the basis for initial allocation;
- Government employs a WBP (world's best practice) benchmark to set the baseline for initial allocation for the industrial sector to incentivise long-term emissions reductions post-2012;
- A Performance Based Allocation (PBA) methodology be employed in the long term; and
- An NZ ETS should flexibly and fully account for the manner in which competitiveness concerns are addressed by its trading partners.

<http://www.holcim.com/NZ/EN/id/1610647372/mod/gnm50/page/editorial.html>

EU Prices Continue to Fall

Recent trading has seen significant softening of the price to historical lows.



www.pointcarbon.com

Amidst considerable uncertainty in 2008 allocations and actions such as the German Government contesting these in court, the price of EUA has continued to slide the past weeks.

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