SUSTAINABLE ENERGY NEWS on EMAIL (SENSE)
Number 51: June 2008

Welcome! SENSE is a service of the Energy Policy Unit of the Sustainable Energy and Climate Change Project (SECCP) of Earthlife Africa Johannesburg (ELA Jhb).

SENSE is a regular publication, edited by Tristen Taylor. We welcome any feedback and submissions. Also, let us know if you wish to get more information from ELA Jhb, or know someone else who should be receiving SENSE. Please note that the material in SENSE does not necessarily reflect the positions or policies of Earthlife Africa Jhb and/or the SECCP.

Contacts:
Tel: +27 11 339-3662
Email: seccp@earthlife.org.za

To download a PDF copy of this SENSE edition, go to:
http://www.earthlife.org.za/Files/SENSE%2051%20June%202008.pdf

---

CONTENTS

---

1. Editorial

Sometimes, someone else beats you to the punch. Harper’s Weekly started off with:

"Oil reached a record $139.89 a barrel. Four Western companies met with Iraq's Oil Ministry to finalize no-bid contracts to tap Iraqi oil fields, and the Nigerian government distributed billions of dollars of windfall to corrupt state officials. Thirty-five countries and 25 oil companies met in Jeddah, Saudi Arabia, to try to fix global oil prices, which have caused strikes, riots, and inflation around the world. Many OPEC countries blamed speculators for the price increase, as did some representatives of oil companies and oil-dependent industries. United States Energy Secretary Sam Bodman blamed supply and demand, as did lobbyists for Goldman Sachs, Morgan Stanley, and the International Swaps and Derivatives Association. Drivers in the Gaza strip, where Israel limits fuel supplies and black market gas costs $27 per gallon, used vegetable oil and turpentine as fuel, producing toxic fumes that result in diarrhea and stomach pain. The National Oceanic and Atmospheric Administration cancelled four global-warming research expeditions, citing the cost of fuel."*

Bravo, and not Project Bravo, which is, of course, a sign of Eskom's coke addiction and its continued, pathological aversion to sunlight and fresh winds. Natural gas addictions are being fantasised about down in the Western Cape, despite the climbing street prices. This addiction is being matched within Cabinet, with the recent Cabinet statement on mainlining caesium isotopes.

Lest you think I'm taking the addiction metaphor beyond the bounds of good taste, consider the definition of substance dependence from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV TR):

"Substance dependence: When an individual persists in use of alcohol or other drugs despite problems related to use of the substance, substance dependence may be diagnosed."

Our continued reliance on petroleum as our primary source of energy in society despite its increasing scarcity and escalating price surely classifies as a substance dependence. Ditto for natural gas and uranium. As for coal, with its acid rain and planet-frying CO2 emissions….

Some people just don't get the point.

Others, however, do. Darling Windfarm came on line in June, the German School went solar, and City Power is thinking of doing something with landfill methane. See the SA Energy Policy & Analysis section for analysis on our high-carbon economy and the end of oil.

Perhaps, the most interesting news report in this edition regards Botswana's planned Mmamabula coal-fired power station. International Power Plc and CIC Energy Corp. are failing to build the station, from which Eskom had planned to purchase 75% of the station's 2400MW output. Eskom now has another supply hole to fill, and all thanks to the much vaunted efficiency of the private sector.

Anyway, that's enough for this editorial, I've run out of cigarettes and, thus, must abandon writing and make a dash to the shops to obtain my daily allotment of cancer on the instalment plan.

* Sam Clark, "Weekly Review", Harper's Weekly, 24/06/08, http://harpers.org/archive/2008/06/WeeklyReview2008-06-24

Tristen Taylor
Energy Policy Officer
Earthlife Africa Jhb
30th of June 2008

---

2. SECCP News

Press Release: NERSA vs. Eskom, Tariffs for 2008
Earthlife Africa Jhb
18th of June 2008

NERSA's ruling (18/06/08) on Eskom's recent application for a 60% tariff increases strikes a chord of hope. Vigorous submissions and public actions by civil society, unions, academics and municipalities seem to have been listened to, and NERSA's ruling could provide the basis for greater sanity within the energy sector.

Earthlife Africa Jhb is pleased to note the following in regards to NERSA's decision:

1) That poor customers (Homelight 1 & 2) will not face additional tariff increases. NERSA is entirely correct that the burden of rising energy costs should not be borne by the poor. Eskom's application on this point was unjust and ill-conceived, and NERSA should be commended for not allowing a tariff increase at odds with poverty eradication and social welfare.

2) That a mechanism be developed to deal with rising primary energy costs and that Eskom fully develops risk analysis within this arena.

There are, however, areas in which NERSA could have taken a more visionary approach, as warranted by the systemic energy crisis that blights not only South Africa but also the globe. In particular, NERSA missed the opportunity to address the following issues:

1) The structural issue of long-term primary energy costs was not addressed. Due to systematic and terminal shortages within the petroleum, coal and uranium commodity sectors, Eskom's primary energy costs will continue to rise year upon year. Current industrial practise, geological factors (such as Peak Oil) and geopolitics uncertainties will all mean that the price of coal, oil and uranium will continue to increase. NERSA has not ruled on the wisdom of Eskom continuing of increasingly expensive energy path while longer-term cheaper, safer, and cleaner alternatives are available. The only way to avoid further increases due to rising primary energy costs (i.e. fossil fuels) is massive investment in renewable forms of energy (wind, solar and tidal). This is a matter of urgency.

2) The current Free Basic Allocation of electricity (50kWh per household per month) is inadequate and needs to be increased. Earthlife Africa JHB believes that this socio-economic measure is within NERSA's remit and Eskom's application was a perfect time to address this measure. It is unacceptable that in a country as rich as ours that poor people have to resort to unhealthy coal and/or dangerous

paraffin to meet the basic energy needs of cooking, heating and lighting.

3) The secrecy around Eskom's large, industrial users of electricity ("contestable customers") has not been lifted. Thirty companies account for 40% of consumption and these companies have individual contracts with Eskom, with the price of electricity often linked to external factors such as the price of aluminium and non-local inflation rates. Earthlife Africa JHB believes that these companies are not paying their fair share towards Eskom's costs and the CAPEX programme and that these contracts be in the public domain for analysis. The current tariff increases do not appear to affect these customers. NERSA is remarkably quiet in regards to Eskom's contestable customers.

4) NERSA passed up the opportunity to reverse its previous decision to allow Eskom to sell electricity under the Developmental Electricity Pricing Programme (DEPP). The DEPP guarantees large-scale industrial foreign users the cheapest electricity in the world and tariff set at rates guaranteed to provide positive internal rates of return to multinational corporations. This kind of pricing policy—at a time when small businesses are having their overhead costs increased in a tight economic context—is patently unfair and against sustainable economic development.

Tristen Taylor, Energy Policy Officer for Earthlife Africa Jhb, sums up NERSA's decision, "We are pleased to see that NERSA has protected poor users in its decision. For this, NERSA should be commended for defending household budgets and not imposing unnecessary hardship on South Africa's most vulnerable. We are disappointed that NERSA didn't address the key issues of the economic dead-end of fossil fuels, an increase to the Free Basic Allocation, and Eskom's contestable customers. Overall, NERSA's decision is a positive step forward, but there is huge amount of work still to be done."

Press Release: NERSA Tariff Hearings, Civil Society Slams Eskom's Proposed Hikes
Earthlife Africa Jhb, Anti-Privitisation Forum
21st May 2008

The National Energy Regulator of South Africa (NERSA) will hold a public hearing on Friday (23/05/08) on the proposed Eskom tariff increases. Earthlife Africa Jhb and the Anti-Privitisation Forum will be there, as will 200 community members from Soweto and Soshanguve, demonstrating against Eskom's unwise, ill-timed and anti-poor price increases.

The case against Eksom's proposed tariff increases has a few key components: First, the tariff increases do not adequately protect poor consumers and will bring new hardships to communities already struggling for mere survival. This could be avoided through the implementation of a step-block tariff and an increase of the Free Basic Allocation to 100kWh per person per month.

The second main reason to reject Eskom's tariff increases is the unwise financial planning that structures the increases. By committing itself to a new build programme of coal and uranium power sources, Eskom is effectively locking the entire country into a fossil fuel economy for the next fifty years. Within ten to fifteen years, the costs of solar and wind generation per kWh produced will be below that of coal and uranium, mostly due to the long-term rise of coal, uranium, gas and petroleum

stocks. These fossil fuel commodities are finite, dwindling, and increasingly in demand. The long-term price of these fuels will rise significantly.

The third reason is that Eskom has failed to show any meaningful commitment to cost-cutting measures; the ten million rands in bonuses to top management (who have managed to get coal stockpiles horribly mixed up, invested money in financial instruments instead of maintenance, and have cost the country billions through some bizarrely-timed blackouts) would be a great place to start.

The final reason is that the Developmental Electricity Pricing Programme (DEPP) and the related Alcan contract remain on the books. It is economically unsound, socially evil, and environmentally ill-conceived to provide power subsidies to a foreign corporation with minimal job creation while raising prices on the rest of South African society. In effect, why should South African citizens and small businesses have major price increases while foreign corporations are guaranteed profits through artificially low prices?

For a copy of the written submission, please go to:

http://www.earthlife.org.za/Files/SENSE%2050%20May%202008.pdf

Press Release: Resistance Against Unfair Tariff Hikes Grows
Earthlife Africa Jhb, Anti-Privitisation Forum
21st of April 2008

On the 23rd of April 2008, approximately 2,000 members of the Anti-Privitisation Forum (APF), Earthlife Africa Jhb (ELA Jhb), the Landless People's Movement
and The Greenhouse will be hitting the streets in Johannesburg to protest against Eskom's proposed and unjust tariff hikes.

The march will begin at Library Gardens at 10am, moving to City Power (Jorrisen Street) and then to Eskom (Smit Street). In addition to this protest in Johannesburg, protests will take place in Pretoria (to DME and NERSA), Durban and Cape Town on the same day.

These events will be preceded by pickets on Tuesday (22nd of April) in Pretoria (DME & NERSA), in Johannesburg (Eskom & DME) and the Vaal (Eskom). All of these pickets will commence at 10:00am, please contact APF Organiser, Silmuko Radebe (see below) for more information.

The proposed tariff hikes of 60% in real terms will negatively affect the living standards of poor households and will be at odds with efforts towards poverty reduction. Eskom will be placing a burden on consumers who cannot already afford electricity. Despite the Government and Eskom's repeated boasts about electrification, 30% of South Africans are still without electricity. Of the 70% who do have electricity, many poor users suffer from disconnection.
Furthermore, users of prepaid meters disconnect themselves (due to lack of funds to feed the meter), thus transferring the onus of disconnection from the state to the citizenry. The Free Basic Allocation of 50kWh a month per household is widely regarded to be inadequate; 50kWh doesn't stretch that far

between six to eight people.

APF Organiser, Silumko Radebe, states that, “The restructuring and preparation for the privatisation of ESKOM has led to the present crisis. Following the dictates of GEAR and ASGISA and the Washington consensus that gave birth to the neoliberal policies, the energy sector was opened to foreign investments through privatisation and deregulation. The motivation for restructuring Eskom was that there is a need to introduce competition into electricity provision. Eskom was, therefore, broken up into its generation, transmission and distribution divisions and corporatised. The current crisis is borne of these efforts to create a power market where scarcity of energy resources ensures a ‘competitive environment’ and profitability for the generators and distributors of electricity. The restructuring of the distribution division set up regional electricity distributors (REDs) that would be financially and organisationally independent of one another and the state. In other words, electricity is treated as a commodity rather than a public service.”

A social ill will only be increased by the proposed tariff structure. In response to rising electricity prices, many poor consumers will turn towards alternative energy sources such as paraffin, coal, and biomass. This will have enormous financial and social consequences: For example, in 2000, there were 46,000 paraffin fires, 50,000 paraffin burns, and at least 4,000 children died from drinking paraffin. The total cost to the economy of paraffin related incidents is R100 billion a year. Our children are being physically scarred for life or are dying because Eskom refuses to supply adequate electricity to its poorest and most marginalized citizens.

This move of Eskom’s is surprising and foolhardy. There exists a set of reforms, which if implemented, can alleviate the power crisis and the lack of access crisis that besets this country. They are:

1) A step-block tariff with a free basic allocation of 100kWh per person per month.
2) The opening up of Eskom’s secret contracts with large-scale users and tariff increases on the 25 companies that consumer 40% of our electricity generated.
3) The scrapping of subsidised electricity for foreign corporations under the Developmental Electricity Pricing Programme, and, in particular, the Alcan contract.
4) The abolishment of pre-paid metres.
5) The reorganisation of Eskom within the state so that it operates as an agent of social construction and not a profit-making business.
6) Investment in renewable energy instead of the costly fossil fuels of coal and uranium.
7) No member of Eskom management shall be paid a bonus.

Tristen Taylor, Earthlife Africa Johannesburg’s Energy Policy Officer, states, “As much as electricity tariffs needs increase to address infrastructure maintenance needs, the proposal from Eskom is either vague or at odds with endeavours for poverty eradication. It is of utmost importance that Eskom addresses the issue of indigent users access and affordability of electricity supply and unless Eskom adequately addresses its electricity-generation strategy that is at the heart of its long-term financial ill health, Eskom’s proposals should be rejected by NERSA.”

SECCP Staffing News

The SECCP welcomes the addition of Makoma Lekalaka (Programme Officer) and Janet Jackson (Finance Officer) to the team. At the end of April, the SECCP Project Co-ordinator, Richard Worthington, left the SECCP to take up a post at WWF-SA. We wish him well.

---

3. SA Sustainable Energy News

"Winds of change blow for 'mad Austrian'"
By Edwin Naidu
IOL
8th of June 2008

Despite numerous obstacles, Hermann Oelsner has finally triumphed in his 12-year battle against bureaucracy, ushering in new hope for the country's energy prospects with South Africa's first wind farm generating power in Darling, Cape Town.

The farm was launched last month by Minerals and Energy Minister Buyelwa Sonjica.

Described by cynics as a "mad Austrian", Oelsner, an engineer, has been in the country almost two decades working in the energy field. His unrelenting fight to get the wind farm off the ground saw him rail against authorities in his quest to produce electricity from wind power.

Oelsner initially struggled against Eskom's reluctance to allow small operators to break its energy monopoly, and had to take the Department of Environmental Affairs to court twice before he secured government support.Funding for the R75-million farm was provided by a Danish International Development Assistance programme grant, the Darling Independent Power Producer, Central Energy Fund and the Development Bank of Southern Africa. Sonjica said wind had the potential to meet 9 percent of the country's energy needs.

Source:
http://www.iol.co.za/index.php?set_id=1&click_id=13&art_id=vn20080608091447451C358330

"German school basks in solar power"
By Laura Grant
The Sunday Independent
8th of June 2008

Children at the German International School in Johannesburg have been given a unique opportunity to learn first-hand about how solar power works. A solar energy system has been installed on the school's roof as part of a programme by the German Energy Agency (dena).

Solar thermal collectors supply energy for hot water for the kitchen and heat the water for the school showers for up to 1 200 users a day. Twelve photovoltaic panels on the roof will generate more than 5 300kWh of electricity a year. This electricity is used directly for electronic devices in the school and it charges a back-up battery system.

This will cut the school's energy costs and ensure that, even during power cuts, essential services such as the phone lines, computer systems and emergency LED lights keep running.

In total, the solar energy system will save 22 300kWh of electricity a year and reduce the school's carbon dioxide emissions by about 18 000kg a year, according to Schüco, the German manufacturer of the school's solar.

The children can also see how the photovoltaic and the solar thermal systems in the kitchen are functioning because they are fitted with a data entry system that allows the school to monitor the energy generated, the current performance and the carbon dioxide saved.

The school's solar system is worth more than R300 000, says Rainer Kempf, the director of Solarzone, the South African company, based in Strand, which installed the school's system. But this is a "prestige" system, he adds….

Read the rest at:
http://www.iol.co.za/index.php?set_id=1&click_id=105&art_id=vn20080608112316536C923298

"Jo'burg to Turn Gas Into Power"
By Siseko Njobeni
Business Day
24th of April 2008

THE City of Johannesburg has embarked on a project to turn waste gas from its various landfill sites into energy, according to a senior official in the municipality.

The methane gas-to-energy project presents the municipality with a source of energy from an unused and cheap resource and comes at a time when municipalities need additional capacity as power utility Eskom struggles to keep up with demand for electricity.

City of Johannesburg executive director for infrastructure services Themba Camane yesterday said the municipality had identified the need for extraction of dangerous gases from the city's various landfill sites. "These gases could either be destroyed or converted into energy. Normally a landfill produces various gases. Methane is the one produced in large quantities.

"If released into the atmosphere, it contains a lot of carbon. That is not good given the various initiatives to curb carbon emissions," he said.

"If we can capture the methane, we would contribute to reduction of carbon emissions and the fight

against global warming."….

Read the rest at: http://allafrica.com/stories/200804240131.htm

"Solar Plant to Sell Electricity"
By Siseko Njobeni
Business Day
25th of April 2008
Posted to the web 25 April 2008

ISRAEL-based solar energy company MST Technology plans to enter SA's electricity generation industry.

It would build a turnkey solar power plant in Taung, North West, the company's SA representative, MK Malefane, said yesterday. The company said the R48bn project would add 1000MW in the first year and 5000MW in all by the end of the fifth year.

SA faces an unprecedented electricity supply shortage, which is expected to continue until at least 2013.

Malefane said that from the seventh year power would be exported. It would cost the company R4bn to set up the plant, with a capacity of 1000MW a day. MST Germany would establish a joint venture with a South African entity, "By the seventh year we will be able to provide enough electricity for South Africa and still be able to export," Malefane said. Malefane said.

The company had made a proposal to the minerals and energy department, he said.

Department spokesman Bheki Khumalo said yesterday it was aware of MST's plans. "Our officials have requested a detailed proposal that will show project economics, viability and policy implications," he said....

Read the rest at: http://allafrica.com/stories/200804250214.html

"Eskom Offers Homeowners Rebates for Solar Initiatives"
By Luyanda Makapela
BuaNews
21st of May 2008

Eskom is offering homeowners rebates of 15 to 20 percent on the cost of installing solar water-heating systems through its Solar Rebate Programme. Homeowners can now save from about R1 860 up to R4 900 on the cost of a solar water-heating system. These systems when installed, typically ranges from about R14 000 to about R33 000 - depending on the make and size of the geyser, type of roof and overall complexity of installation, according to Eskom's General Manager of Demand Side Management Andrew Etzinger.

"The solar rebate programme has been developed to ensure consumers not only obtain systems at a discount, but to encourage people to buy quality systems.

"For this reason, the programme applies only to systems that have been tested by the South African Bureau of Standards [SABS]. Some systems have also been awarded the SABS mark which is an assurance of high quality and safeguard," said Mr Etzinger.

The Eskom Solar Rebate Programme enables consumers to buy solar water heating systems from accredited suppliers and claim a portion of the cost back as part of Eskom's commitment to promoting the use of renewable energy….

Read the rest at: http://allafrica.com/stories/200805210381.html

"Hydropower could contribute up to 7 000 MW"
By Guy Copans
Engineering News
11th of April 08

South Africa could generate an additional 5 GW to 7 GW of electricity from hydropower schemes, a Johannesburg-based consulting engineer says.

Currently, under 2 GW is available from hydropower, out of a total generating capacity of about 40 GW. This, the consultant notes, is almost exclusively pumped-storage hydropower, and the 5 GW to 7 GW potential could well be exceeded if every prospective pumped-storage site could be developed, with some seven pumped-storage sites having been investigated by Eskom over the last decade.

Eskom is currently actively attempting to mitigate load-shedding by bringing on line short lead time gas-turbine generating plants and pumped-storage hydropower schemes, which have longer lead times but are more economically and environmentally acceptable.

With hindsight, however, the power utility should have started much earlier with expanding its pumped-storage hydropower peak-lopping capacity and/or bringing its mothballed thermal power stations back on line, says the consultant.

He says that the Southern African Power Pool plans tabled in 2001 are receiving active consideration from both Eskom and the South African government. But whether both parties have access to sufficient technical resources to deal with hydroengineering work is doubtful, he states.

He asserts that Eskom’s proposal to surcharge individual households for using more than a certain amount of kilowatt hours a month, without reference to the time of day, “defies logic”, as people who run tool motors and geysers in the middle of the night should get a rebate, not a surcharge.

He further states that Eskom’s failure to anticipate the disastrous consequences of a laisser faire attitude

to the issue of keeping an adequate reserve of power generating capacity is worthy of censure. However, he adds, January's load-shedding must be viewed against a gross demand of the order of 30 GW, compared with a theoretical generating capacity of 40 GW, when a 10-GW – or 25% – peak reserve was reportedly severely depleted by unplanned outages.

Broadly speaking, there are two kinds of hydropower generation: pumped-storage and baseload hydropower.

Pumped-storage hydro- power involves using surplus base- load power generation, generated by coal-fired power stations during off-peak hours, to lift water, using reversible pump-turbines from a low- level to a high-level storage dam. The flow is then allowed to run back through the turbines from the upper to the lower dam so as to generate power during peak periods, a cycle that is repeated twice daily.

There are a number of these in South Africa, including the Drakensberg scheme and Eskom's new Braamhoek scheme, where construction started recently. Once completed, by 2012, it is expected to generate 1 332 MW of peak lopping power.

Baseload hydropower generation involves the creation of a large dam to store flood flow that is discharged through turbines in the hydro- power station on a year-round basis into the river below, provided that there is sufficient rainfall in the region, perhaps, as a parallel activity to a flood control or an irrigation or river navigation scheme….

Read the rest at: http://www.engineeringnews.co.za/article.php?a_id=130249

---

4. SA Unsustainable Energy

"It's hot"
Noseweek, Editorial, Issue # 105
July 2008

Eskom's heavily punted – and funded – homegrown Pebble Bed Modular Reactor (PBMR) project has, we surmise, just received the kiss of death – in the form of faint praise from one of Europe's top nuclear energy experts.

The PBMR, said France's Dr Bertrand Barré in a recent presentation, is great, really great ... for generating heat. (As if we didn't know!) No – heat as in 1000 degrees celsius. But, said Dr Barré, it's really not so great for generating electricity.

In his words, the PBMR's main drawback is its "very low power density".

He revealed that the PBMR has a power density of only 2 MW/cu m, as compared to 100 MW/cu m for

a conventional nuclear reactor. This implies a far poorer investment-to-energy ratio. Which is, sort of, what we guessed a while back.

In plain language, standard nuclear power stations are twelve times more energy efficient when it comes to generating electricity. So, when it comes to cost, and economic viability as a generator of electricity, the PBMR is never going to cut it.

Barré didn't say it – he's a nuclear man – but, for the amount of electricity the PBMR is going to produce, you may as well have some strategically placed windmills that are safe, proven, quickly erected – and vastly cheaper.

Back to that back-handed compliment concerning the PBMR's capacity to generate heat: According to Dr Barré, the great heat generated by the PBMR could well find application in industries that require it – such as in the manufacture of synthetic fuels.

So the suggestion now is: Why not prise the whole initiative from cash-strapped Eskom's increasingly tremulous grasp, and hand it over to a cash-flush Sasol?
Maybe, again just maybe, the outcome would aid in the manufacture of synthetic fuels for the transport sector, now that biofuels are so rapidly going out of fashion.

Bertrand Barré chairs the International Nuclear Energy Academy. He should know. He is also scientific advisor to French nuclear-technology group Areva (the company vying with Westinghouse, of the US, to build the latest version of its pressure water reactor [PWR] in South Africa).

Noseweek has long decried the suspiciously enthusiastic campaign to promote and develop, with public money, the dubious and unproven Koeberg PBMR scheme.
Other opponents include Koeberg's neighbouring City of Cape Town (understandably, considering the waste dump rising under Koeberg). Likewise Earthlife Africa, and more than 70 other objectors.

Earthlife scored when the Cape Town High Court ruled that the Department of Environmental Affairs and Tourism (DEAT) approval of the environmental impact assessment report for the PBMR demo was "fatally flawed". The judge overturned the approval and ordered the director-general of the DEAT, Dr "Chippy" Olver, to give Earthlife and other interested parties an opportunity of making further written submissions.

It is well known that, before gaining power in 1994, the government was firmly opposed to nuclear energy. But it seems that seductive hints of enormous profits (since the financial viability of the project hinges on eventual commercialisation) have tempered that moral resolution.

Monsieur Barré's synthetic fuels notion might just lead to the extraction of something of value from a huge investment in an otherwise clearly doomed experiment.

Source: http://www.noseweek.co.za/article.php?current_article=1747

"S.Africa gives nuclear a nod to help power crisis"
By Wendell Roelf
Reuters
12th of June 2008

CAPE TOWN, June 12 (Reuters) - South Africa's cabinet has approved the country's nuclear policy, enabling the controversial technology to play a greater role in alleviating a critical power shortage, a senior government spokesman said on Thursday.

Utility Eskom has rationed power to the key mining sector since a near total collapse of the electricity grid in January. The power shortage has spooked investors and is seen contributing to slower growth this year.

Eskom, which operates South Africa's only nuclear plant, Koeberg, plans to spend 350 billion rand ($43.56 billion) on generating capacity over the next five years and has invited bids for a new nuclear power station.

"Cabinet approved the nuclear energy policy for the Republic of South Africa," Themba Maseko, chief government spokesman, told reporters at a post-cabinet briefing.

"The objective of this policy is to increase the role of nuclear energy as part of the process of diversifying our primary energy sources to ensure energy security," Maseko said.

He said the nuclear policy would reduce South Africa's over-reliance on coal-powered fire stations that made it a major emitter of harmful greenhouse gases.

Eskom relies primarily on coal power stations to provide about 95 percent of the country's electricity.

The policy also covers radioactive waste management and the mining of uranium to ensure a security of supply. South Africa plans to build 24-30 Pebble Bed Modular Reactors, a new generation nuclear technology. Construction of a PBMR demonstration model at Koeberg, about 50 kilometres west of Cape Town city, is scheduled to start 2010....

Read the rest at:
http://www.reuters.com/article/rbssConsumerGoodsAndRetailNews/idUSL1265149620080612

"Rand Uranium Expects to Be in Global Top 10"
By Charlotte Mathews
Business Day
18th of April 2008

RAND Uranium, the newly created company formed by Harmony Gold Mining and the Pamodzi Resources Fund, yesterday said it would become the world's ninth-largest uranium company when output starts in three years.

Harmony CEO Graham Briggs also said the company had set its sights on listing on a major stock exchange, probably Toronto or London, with a dual listing on the JSE once it has begun production.

Briggs was briefing the media and analysts visiting Rand Uranium's assets near Randfontein.

Corporate activity in the uranium sector has stepped up in the past five years because of a steep rise in the spot price to a peak of about $138/lb last year from $10/lb in 2002, although the price has since fallen to $68. The main price driver is growing demand for alternative energy sources and dwindling supplies of uranium....

Read the rest at: http://allafrica.com/stories/200804180295.html

Mitsubishi Heavy mulls stake in S.A. nuclear project
26th of May 2008

TOKYO, May 27 (Reuters) - Mitsubishi Heavy Industries Ltd (7011.T: Quote, Profile, Research, Stock Buzz) said on Tuesday it was considering South Africa's request to take a stake in the company that is developing the country's advanced nuclear reactors.

"The South African government last year expressed a hope that Mitsubishi would take a stake in PBMR (Pebble Bed Modular Reactor Ltd)", said a spokesman for Mitsubishi Heavy, Japan's biggest machinery company.

"We have been considering the proposal, but nothing has been decided."

The next-generation reactors feature a design that is supposed to dramatically improve safety and efficiency, although environmentalists say it is unsafe and creates radioactive waste....

Read the rest at: http://www.reuters.com/articlePrint?articleId=UST13642420080527

"Rotting Power Grid 'Will Take R26bn to Fix'"
By Siseko Njobeni
Business Day
10th of June 2008

BACKLOGS in the maintenance of SA's electricity grid would cost about R26bn to fix, and had left crucial equipment rotting, threatening a further power crisis even if Eskom can generate enough power.

Speakers at an electricity distribution conference warned yesterday that underinvestment in ageing infrastructure could plunge the country into another electricity crisis and threatened economic growth.

Minerals and Energy Minister Buyelwa Sonjica said: "The lack of maintenance and refurbishment of

the electricity distribution infrastructure poses a threat to our economy.

"It has been a while now that we have been trying to mobilise all parties in the distribution industry to invest in infrastructure." Sonjica said the government invested about R1,8bn on new distribution infrastructure.

The power utility and various municipalities are responsible for electricity distribution.

EDI Holdings chief operations officer Willie de Beer said there was now a shortfall of R1,6bn a year on infrastructure maintenance expenditure. He said there was an "investment adversive" approach to infrastructure maintenance.

Existing infrastructure had to handle higher loads because of growth in demand and more energy intensive processes.

"To effectively manage the future maintenance and refurbishment requirement, an estimated R2bn per annum will be required. In general, the current practices in the (electricity distribution industry) are no guarantee for business sustainability and economic growth." He said there was a need for "an urgent structured intervention" to avoid a collapse of the industry.

EDI Holdings CEO Phindile Nzimande said envisaged economic growth would have to be supported by additional generation capacity "and a well-oiled distribution business".

The conference put the spotlight on the slow restructuring of the country's R3,5bn distribution industry, which has been on the cards for many years.

The 1998 white paper on energy envisaged the creation of viable and sustainable distribution entities, which were later fine-tuned into the Regional Electricity Distributors (Reds), in terms of a 2006 cabinet decision.

But concern about the effect of Reds on municipal finances, uncertainty on the shareholding in the entities, transfer of electricity, compensation and the governance arrangement of the Reds have stalled implementation.

South African Local Government Association chairman Amos Masondo said that with the exception of a handful of municipalities "there has been a general acceptance of the process".

Gauteng Premier Mbhazima Shilowa said the province was ready to implement the Reds in the three metropolitan municipalities in the province: Johannesburg, Tshwane and Ekurhuleni. He said the provincial government was eager to meet the concerned municipalities and Eskom to, among other issues , set time-frames for the restructuring programme….

Read the rest at: http://allafrica.com/stories/200806100077.html

"German group plans SA chrome plant"
By Michael Hogan
IOL
5th of April 2008

Hamburg - German metals group Cronimet is considering setting up a chrome smelter in South Africa following its purchase of South African chrome mining deposits, CEO Guenter Pilarsky said on Monday.

A consortium headed by Cronimet in late April acquired the mining rights to a substantial chrome ore deposit located in the Western Limb of the Bushfeld geographical complex near Northam in South Africa.

Privately-owned Cronimet plans to start chrome ore mining in 2008 and hopes 2009 ore production will reach 400 000 tons.

"We will be able to expand this in the coming years as the mine is large enough," Pilarsky said. "We have plans to increase this to 600 000 tons annually later and we also have plans to build a ferro-chrome smelter there or to acquire one."

Until any smelter is operational, the South African chrome ore will be exported worldwide. Planned smelter capacity is not being given.

But current rapidly-rising energy costs mean Cronimet is still considering where to build any smelter....

Read the rest at:
http://www.iol.co.za/index.php?set_id=1&click_id=594&art_id=nw20080505133122323C875877

"South Africa in market for gas imports from Qatar"
AFP
7th of May 2008

DOHA (AFP) — South African President Thabo Mbeki said on Wednesday that his country seeks to import liquefied natural gas (LNG) from Qatar.

"South Africa is indeed very interested" in acquiring LNG from the gas-rich Gulf Arab state, Mbeki told businessmen from the two countries as he wound up a two-day visit to Qatar.

Mbeki said economic ties between the two countries fell short of their political links, adding that he held talks on cooperation in the sectors of astronomy and human resources.

South African Trade Minister Mandisi Mpahlwa said his country's firms, represented by some 100 businessmen in the delegation, wanted "long-term partnerships, joint ventures, and solid and sustainable relationships."

South Africa's SASOL is already a partner of government-owned Qatar Petroleum in the joint-venture Oryx GTL, a gas liquefying plant in the Gulf emirate.
Qatar's giant North Field has proven reserves of more than 900 trillion cubic feet (25 trillion cubic metres) of natural gas, the third largest in the world.
Ahead of the visit, the South African foreign ministry said Qatar, with its huge energy reserves, was of great strategic importance to South Africa.

Source: http://afp.google.com/article/ALeqM5jt6jgvE105BvXCPNnSZKT0vaf3YA

"Gas Fields 'Could Solve Energy Crisis'"
Cape Argus (Cape Town)
18th of June 2008

The gas fields off the West Coast must be developed if the country is to solve the energy problems strangling economic growth, says the Cape Town Regional Chamber of Commerce and Industry.

Chamber president Gerald Wolman said the gas, which was discovered nearly a decade ago, could be a primary fuel for industry and be used to generate electricity to ease the current crisis.

"We know the gas is there but five years ago the discovering firm, Forest Oil, stopped all work on the Ibubesi gas field because there was no market for gas and because of uncertainties on mineral royalties and tax issues.

"We now have the market but the oil and gas industry will not return until the royalties and tax issues have been resolved," Wolman said.

He said combined cycle gas power stations were efficient and could be built quickly.

"The big advantage is that the fuel is piped in and one does not need the vast infrastructure of railway lines and trucks to bring in the coal and take away the ash. They are also environmentally acceptable."

Five years ago the economist who did the viability study for Forest Oil told the chamber: "If Eskom can be pushed aside from a position of control to a position of observation, a gas plant on the West Coast can be on line by mid-2006. If not the Western Cape will suffer the consequences."

At the time Eskom admitted that the country's energy capacity could be depleted by 2007 but was looking at more peaking power, alternative energy and nuclear power as the solution, the chamber said. The government had also rejected Eskom's application to build new base-load power stations.

"We now have a situation where a large percentage of the country's supply of diesel is being burned in peaking power stations, by trucks transporting coal for Eskom and in standby generators, all at enormous cost to the economy.

"And while this is happening, the gas field which could produce electricity and provide a primary fuel for industry is unexploited."

Wolman called on the government to urgently look at the development of the gas discoveries and remove all obstacles to exploitation of the resource.

Source: http://allafrica.com/stories/200806180516.html

"Govt Rules Out Maize as a Source for Biofuels"
By Shaun Benton
BuaNews
19th of June 2008

With food prices having risen dramatically in recent months, Minister of Trade and Industry Mandisi Mpahlwa on Wednesday emphatically ruled out the use of maize as a crop source for biofuels.

While government will continue to proceed with its biofuels programme, other crops would be sourced to provide for biofuels, said the minister.

The minister was responding to a question in Parliament on the use of maize, or mealie meal, in biofuels programmes and the pressure this would put on maize prices as a result of increased demand.

Meanwhile, government would be taking both short- and long-term measures to deal with what he called soaring food prices in South Africa and globally, as it proceeds with the medium-term objectives of the economics cluster.

These strategies would include increasing agricultural production in the country, speeding up land and agrarian reforms, and the provision of skills for emerging farmers.

Government will also seek to "proactively improve" its ability to address anti-competitive behaviour in the context of domestic pricing structures, the minister added.

With oil prices also at an all-time high, greater attention is being paid also to the supply of energy, particularly fuel.

The production by South Africa of synthetic fuels, which entails using coal-to-liquid and gas-to-liquid technologies in which South Africa is already a world leader, will continue to be a central plank of the country's energy strategy.

"The production of synthetic fuel is crucial to cushioning the country against the supply insecurities," the minister said....

Read the rest at: http://allafrica.com/stories/200806190286.html

"Get set to be cold in the dark"
IOL
31st of May 2008

Falling temperatures will push up electricity demand across South Africa - and with it the real prospect of winter blackouts.

The national power grid remains stable, but for the first time this week, demand went past the summer's high of 31 000MW and peaked at 34 000MW.

Based on 2007's figures, the next fortnight could be critical. It was during this period in 2007 that demand for electricity spiked at about 37 000MW, which Eskom forecasts could be repeated. According to utility's weekly demand review, peak demand is expected to marginally increase above 37 000MW if 2008's winter is no worse than 2007's. If, however, winter temperatures fall below those of 2007, blackouts could be a real possibility.

"Cold weather is bad news for the grid, especially if a cold front sweeps across the country. The grid is currently vulnerable but stable. It is really hard because this is the first winter we have under the energy saving campaign," said an industry source.

"There is less servicing of plants in June and July because we know the system is very tight," he added.

Even though South Africa does not have a history of sustained cold fronts, Eskom expects that even "a little freezing cold" will put its grid under pressure.

"We have a total capacity of over 40 000MW at the moment, which is reasonable, but you still have to deduct over 2 000MW of planned maintenance on it," the source added.

"In terms of unplanned maintenance, it would be difficult to give a figure as it changes as and when plants trip."

At the moment, the utility is undergoing only minimal maintenance on its plants, based on summer usage.

Eskom was in constant contact with the SA Weather Service and using its own forecasters to obtain accurate expected weather conditions so as to plan ahead for any emergency load shedding.

According to the Weather Service's winter forecast, the country could experience "below normal temperatures" on average in June and July.

The seasonal forecast also says the country could experience more severe cold snaps than last year....

Read the rest at:
http://www.iol.co.za/index.php?set_id=1&click_id=14&art_id=vn20080531084351537C347836

"Private Power Producers Want 'Adequate' Returns"
By Siseko Njobeni
Business Day
22nd of May 2008

THE government and the private sector are likely to differ on what constitutes adequate return on investment, a necessity if SA is to attract private sector investors to the power generation sector, according to an energy specialist.

Government policy makes provision for independent power producers (IPPs) to generate approximately 30% of SA's electricity output. Eskom would generate the other 70%.

Entry of IPPs into the sector has, however, been slow and the relatively low electricity prices were seen as a deterrent to investment.

In her presentation to the African Utility Week and Power Indaba, Webber Wentzel partner and energy specialist Brigette Baillie said yesterday the determination of adequate return on investment was likely to be controversial "as the government and the private sector investors and participants often have different opinions as to what constitutes an adequate return".

She said failure by potential private investors to get the return they required because of low tariffs would discourage investment. The level at which tariffs were set affected the bankability of investments. She said tariffs should be set high enough to cover the operating and maintenance costs, interest on the debt, and ensure "satisfactory return" for project sponsors and shareholders.

The cabinet last week approved the electricity pricing policy. The policy creates an investor friendly pricing structure that promotes efficient cost recovery measures and a reasonable return on investment.

In her presentation to the energy summit on Friday, minerals and energy department deputy director-general Nelisiwe Magubane said the move would close the policy gap and create regulatory certainty.

She said private investors wanted certainty about "an adequate" return on investment. "This issue goes to the principles governing the setting of tariffs that can be charged for the sale, transmission or distribution of electricity.

"It will go some way to creating comfort for private investors and participants that the principles applicable to the setting of tariffs are enshrined in legislation and that they state that tariffs must cover the operation and maintenance costs of the project, the debt service in respect of the project, and provide the investors and participants in the project an adequate return".

Baillie said uncertainty about access to the national grid was one of the deterrents to private sector participation. "What guarantee do they have of access to the national grid? In addition to that, there is a

need for a change in policy. Private sector needs an open dialogue on policy."

Baillie said the current "single-buyer" model, whereby IPPs have to sell power to Eskom, was a suitable option for SA, "provided Eskom acts appropriately".
She said the "multi-buyer" model was complex.

Source: http://allafrica.com/stories/200805220351.html

"Erwin rejects calls for Eskom inquiry"
By Christelle Terreblanche
The Cape Argus
15th of May 2008

Public Enterprises Minister Alec Erwin has rejected out of hand the need for an independent inquiry into Eskom and the causes of the national electricity emergency.

Erwin's comments come after reports that the ANC was considering calling for an independent investigation after an internal Eskom report that points to mismanagement.

It is understood that the ruling party may make a formal call on President Thabo Mbeki to appoint such an independent inquiry during Friday's National Electricity Summit, initiated by the ANC and its alliance partners.

But Erwin has either dug in his heels or was out of step with his party colleagues when he rubbished amplified calls for an inquiry by opposition parties on Wednesday.

They made the appeal during Erwin's annual budget vote debate in the National Assembly, which was overshadowed by the energy debacle.

The minister said the opposition completely ignored the fact that there was an independent National Energy Regulator of SA (Nersa) that was already investigating.

"Nersa is charged, it's got a responsibility to investigate Eskom", Erwin said in his reply to the debate.

"Eskom has been and will be investigated and Nersa is obligated to make available its reports on Eskom and the load-shedding. To call all the time for an independent inquiry is just an attempt to get on a commission themselves. The structures are there."

ID MP Lance Greyling expressed "grave concern" about future energy planning, Eskom's "blackmailing" of South Africans with its proposed price hikes of 60 percent and the fact that it charged the public over twice the amount that industry and neighbouring states paid.

"There are simply far too many unanswered questions around the governance of Eskom, and the ID reiterates its call for an independent commission of inquiry to be set up so that we can understand the

full extent of maladministration at Eskom," Greyling said during the debate.

The Democratic Alliance too reiterated its call on the minister to set up an independent inquiry. DA MP Manie van Dyk said it was wrong for Eskom's board and the minister still to be safe in their positions despite the massive costs the crisis has imposed on the economy.

"You and your management should have resigned as a matter of honour or rather as a matter of urgency," Van Dyk stressed.

Earlier on Wendesday, Erwin made an apparent about-turn on his support for Eskom's steep tariff hike proposals, which he had until recently publicly endorsed. Speaking to the media, Erwin said yesterday that while this was the quickest way of solving the problem, there were other ways of dealing with the crisis. The ANC has called for alternative methods of addressing the shortages.

Taking a long-term view in his budget vote address, Erwin stressed the need for South Africa to speedily make a decision on the need for it to invest heavily in the manufacturing and invention of alternative technologies to steer the country away from its reliance on coal energy.

South Africa is among the world's biggest per capita carbon polluters as the crisis around global warming mounts.

"At the rate at which our economy is growing, we have to double our generating capacity over the next 20 years", Erwin said.

"However, as we do this we have to take into account the need to reduce our carbon emissions, which means that we have to diversify our primary energy sources away from coal. This imposes immense challenges in terms of the need to introduce new technologies. In addition, we are not the only economy that is massively investing in its energy sector." He said South Africa was due to stand in long queues for expensive imported technology which would make it vulnerable to global economic risks unless it "moves now".

Source:
http://www.iol.co.za/index.php?set_id=1&click_id=13&art_id=vn20080515114211961C222823

---

5. SA Energy Policy & Analysis

"High price of poison"
By Michelle Pressend
The Times
4th of June 2008

MAYBE TOMORROW: The north’s market-driven solutions to global warming fail to recognise the origins of the crisis — our global economic system

These days, even pollution has a price rather than a cost. Carbon dioxide (CO_2) emissions are trading at about R240 a ton and are forecast to increase to R280 to R300 a ton. It's business as usual for northern countries that have been quick to make the connection between climate change and climate trade.

Proposals to deal with the ecological crisis facing our planet are more business-friendly than people-or planet-friendly.

Trade-led and market-driven solutions proffering first-world technology as the panacea are being punted by northern pundits who fail to recognise the origins of the crisis, which in the first place is our global economic system.

These solutions bolster the competitive advantage of northern countries, which are making major investments in eco-friendly technologies, exacerbate north-south polarisation and maintain the status quo of the underdeveloped countries of the south remaining dependent on the north.

In the international climate-change regime, the north sees its role as developing the technology and transferring it to the south. Most European countries have developed, or are developing, their competitiveness in cleaner, environmentally sound technology and energy efficiency.

On the demand side, housing insulation, building codes and energy-efficient appliances are now available. On the supply side, technologies for CO_2-free power — nuclear, wind and hydro — as well as carbon capture and storage systems, have been developed.

The environmental crisis facing our planet is largely caused by the unsustainable consumption and production patterns of countries in the north. Governments in the north and their multinational companies recognise that they are responsible for global warming and are obligated to provide the countries of the south with appropriate technology and financial re-sources. However, adding insult to injury, they argue that this can only be done within the "right" investment framework favouring a maximum return on their investment.

At the recent Delhi Summit on Sustainable Development, which took place in India from February 7-9, Bjorn Stigson, president of the World Business Council for Sustainable Development, emphasised that 85percent of global financial flows come from the private sector. A staggering 180-billion is needed annually to keep electricity flowing and 100-billion is needed to make these investments in developing countries. If the right investment conditions are in place, the money can be made available, suggested Stigson. This means a return for their investment, a carbon emissions value and price caps on emissions, production standards regulation, policies that are predicable, subsidies for renewable energy and joint funds between government and business so that they can make the investments.

Though some aspects of these investment conditions are necessary for appropriate policies from governments and caps on emissions, by and large, these market -driven conditions will provide little benefits to the poor, nor support effective locally driven actions.

While the West develops its competitive advantage, some developing countries of the south, such as our very own South Africa, marginalise investment in renewable energy, and are lagging behind.

A loose estimate of South Africa's renewable investment, indicated by Saliem Fakir, senior lecturer at the School of Public Administration and Planning at the University of Stellenbosch, is a meagre R2.3-billion compared with R292-billion invested globally in 2005. The department of minerals and energy has committed itself to a meagre contribution of 10000GWh of renewable energy by 2013.

South Africa's renewable energy mix consists of wind, solar, hydro and bio-energy sources. But renewable energy projects, such as those that promote the use of solar lamps and stoves, are largely targeted at poor communities that regard this technology as second-rate, so many of these initiatives remain experimental and do not create the impetus for a transition to a low-carbon society. To avoid this scenario, the government should be prioritising public investment in the creation of domestic scientific capacity targeting renewable energy. For example, India has created a ministry for renewable energy .

The public should be questioning why its taxes are being used to fund predominately non-renewable energy and electricity generation, such as coal and nuclear energy. Public pressure should steer government policy towards a low-carbon society, as market-based initiatives alone will not reduce emissions and save our future.

Michelle Pressend is a senior researcher at the Institute for Global Dialogue: SACSIS

Source: http://www.thetimes.co.za/News/Article.aspx?id=778492

"OPINION: Economy Needs to Clean Up And Slim Down"
By Morné Du Plessis and Peet Du Plooy
Business Day
24th of April 2008

SA HAS created an economy that is hugely energy-intensive. On top of this, most of this energy comes from "dirty" power sources.

In fact, SA has the 14th highest carbon dioxide emissions per capita and the seventh most carbon-intensive economy in the world. The carbon intensity of an economy refers to the amount of carbon (or fossil fuels) a country consumes in producing gross domestic product (GDP). From this perspective, SA is a considerably worse emitter than the US.

Not all of these emissions come from SA's own consumption. A recent WWF report, EU Consumption, Global Pollution, notes that SA produces 63% more greenhouse gas than that accounted for by its own consumption. These emissions are generated in the process of producing energy-intensive goods such as beneficiated metals for overseas markets. This number is substantially higher than the 22% of "imported" emissions recorded for China.

While cheap coal-fired power may have given SA an economically competitive advantage in the past, that advantage is disappearing rapidly.

The exploitation of cheap electricity to build an energy-intensive economy is now having large-scale consequences in terms of both public financing and environmental damage. South African taxpayers will foot the bill for the R20bn that the 2008 national budget has committed to supporting Eskom's coal-powered expansion.

SA has the world's largest coal power stations, which supply 90% of its electricity from low-grade coal through a process that wastes two-thirds of the coal's energy during the conversion to electricity.

Using old technology on mostly capitalised and large-scale power stations is cheap, but coal is also the energy source that produces the most greenhouse gas per unit of electricity. In short, producing SA's electricity is a dirty business.

SA's developing nation status leaves us out of Kyoto obligations to reduce our carbon emissions. This, coupled with our cheap electricity price means that SA acts as an ideal destination to which emissions can be exported.

However, this situation cannot continue when the Kyoto Protocol is extended in 2012 and a global climate deal closes the gaps in carbon trading.

Low electricity prices are becoming a thing of the past. The levy on nonrenewable energy introduced by Trevor Manuel in his 2008 budget starts to "put a price on carbon". The 2c-per-kilowatt price levelled on nonrenewable electricity is a low introductory figure expected to increase as the economic and social value of conserving carbon, and the planet's climate with it, becomes increasingly apparent.

Correctly pricing the cost of fossil fuels is perhaps the biggest single step a country can take in addressing climate change.

Recently, Eskom and the African National Congress (in a resolution from its December Polokwane congress) have both called for a price on carbon.

Putting a price on fossil fuels that reflects the cost of emissions associated with it should become a priority as developing and developed nations seek common ground in a global climate deal that will take us into the post-Kyoto era.

Clearly we need to change the way we do business as a country. It should not have taken rolling blackouts to initiate an infrastructure overhaul. Similarly, it need not take global obligations to prompt us to think about the consequences of the energy options we choose to provide for our future energy needs.

The consequences of investment decisions made in energy and industrial infrastructure today will stay with us for the lifetime of these power plants -- 40 years or more, and that excludes the eight-year lead-in time to commission these plants.

SA will need to take a two-pronged approach in dealing with these challenges: diversifying energy supply away from fossil fuels towards clean sources of energy and diversifying the economy away from energy-intensive industries to high-value and labour-intensive industries driven by innovation rather than excessive electricity.

There is great potential for enterprise, profit and equitable economic growth in the industries that underpin this energy transformation. We cannot ignore the fact that the externalised costs of cheap energy production are significant, and a burden carried by society at large.

Only once the full cost of energy production is taken into account can one begin to understand the full implications of a carbon-intensive economy. The South African economy has the potential to be lean and mean, but it will have to go on a low-carbon, low-energy diet, supplemented with a healthy dose of fair play and common sense, to get there.

Du Plessis is CEO and Du Plooy trade and investment adviser at WWF South Africa.

Source: http://allafrica.com/stories/200804240129.html

"The end of oil is nigh"
By Kevin Davie
Mail & Guardian Online
26th of May 2008

If all the oil the world ever had could be shown on a dashboard fuel gauge, where would the needle be pointing now? Peak oil pundits, who have long said that the world will in time run out of oil, would answer "halfway".

This school of thought has enjoyed only fringe status until recently, but is now fast moving to the mainstream as crude oil prices continue to break new records. Oil was nudging $130 a barrel this week.

Halfway, on the face of it, is not bad news: we still have the other half left.

But if we have indeed reached the halfway mark, this means that oil production has peaked and will decline inexorably from now on until the last possible barrel of oil has been taken from the ground.

At the same time, demand -- driven by continuing economic growth across the globe and in India and China in particular -- is for more. Much more.

Under these conditions oil prices will continue to behave just as they have in recent times: they will go up and up.

One major investment house, Goldman Sachs, has predicted that oil will trade at $150 to $200 a barrel within the next six to 24 months. $200 a barrel translates into R12 a litre for diesel in Gauteng.

Why should the world be running out of oil? Peak oil theory, which has been around for several decades, has been shown to apply in every major oil-producing country including the United States, the United Kingdom (where oil is drilled from under the North Sea), Venezuela and Russia. All these major oil producers have passed their production peak.

Further evidence for the peak oil theory comes from the fact that, despite increasing exploration, fewer large wells are being found. Where fresh oil reserves have been found or are known to exist -- deep below the ocean floor, for instance, or in other inhospitable locations -- they can be technologically challenging to extract.

Continuing political instability in key regions such as West Africa and the Middle East further adds to production uncertainties.

Opec remains officially bullish on its ability to meet demand, but the reserves of member countries such as Saudi Arabia remain state secrets and there are signs that even major producers are battling to ramp up their production.

Saudi King Abdullah, the British Financial Times reported this week, has said: "I keep no secret from you, when there were some new finds, I told them: ‘No, leave it in the ground. With grace from God, our children need it.'"

The subject is studied by the Association for the Study of Peak Oil (Aspo), which has chapters in countries across the globe. Its South African affiliate last year completed a study for the presidency as part of an exercise to model the future of the country up to 2019.

An Aspo study, Energy Futures for South Africa, says that oil discoveries around the world have been declining since the 1960s.

"The evidence from real oil wells [for example, in the US South and the North Sea] provides empirical evidence that oil production roughly follows a bell-shaped curve, rising to a peak and then falling," says the document.

"Approximately two-thirds of the oil-producing nations have passed their individual peaks."

The Aspo report says that because oil is used to make most products and to fuel transport, shortages will have significant effects on the economy, financial markets, transport, mobility, agriculture, food, population, geopolitics and conflict.

The consequences of oil depletion can be mitigated, says Aspo, through energy-efficient transport systems, switching to renewable sources of energy, changing people's patterns of personal consumption, enhancing food security through localised and organic agriculture, pursuing "eco-village" residential development and constructing energy-efficient buildings.

South Africa, Aspo says, has both strengths and vulnerabilities in facing the challenges of global

resource depletion and climate change.

Strengths include relatively low oil dependence, well-established synthetic fuels, abundant solar energy and substantial wind, uranium and coal resources.

But weaknesses include the country's high dependency on imported oil and liquid fuels for transport as well as the energy intensity of South African industry.

South Africa has strength in food security in that it is a net exporter of food and has some subsistence agriculture. Its weaknesses in this area include the fact that commercial agriculture is oil-intensive, only 13% of the land is arable and there are recurring droughts.

Some peak oil pundits believe that the production peak was reached in 2006. As evidence, they point to flat production in recent years despite growing demand.

The Aspo submission to the presidency says that available evidence suggests that global oil production will probably decline between 2007 and 2020 "with significant risk of rapid decline and price spikes".

Simon Ratcliffe, chair of Aspo in South Africa says resource depletion applies in the first case to oil but that fuel sources such as coal and uranium face the same depletion prospects in the coming decades.

Globally, coal is projected to deplete after 2025 and uranium after 2013, he says.

The infrastructural costs of developing new energy sources will also continue to rise, says Ratcliffe. As such South Africa should be switching now to use sustainable, renewable sources of energy. These could include solar and hydroelectric power, the latter from Cahora Bassa in Mozambique and the giant Inga project in the Democratic Republic of the Congo.

Ratcliffe says that in the past two years he has begun to adjust his own lifestyle to adjust to the changes that resource depletion is going to bring our way.

"I have been introducing a steady set of measures such as insulating our home. I had a nice car, which I have sold. I now share a car with my wife, use public transport and if needs be, hire a car for a few days when necessary. Our household has dramatically reduced the amount of fuel we use."

Peak oil scenarios

Business as usual

Massive price increases for air flights and road transportation are foreseen by the Association for the Study of Peak Oil (Aspo).

"South Africa's inadequate public transport infrastructure provides no viable alternative; demand for motorcycles and bicycles and for people to work from home increase; road maintenance costs soar and road infrastructure deteriorates," says the organisation.

Rising prices and fuel shortages will place commercial farmers under pressure.

"Food prices rise significantly and severe food shortages increase; government intervenes in the pricing and supply of food."

Under these conditions local government administration breaks down, local conflict over resources intensifies and the country is fragmented into small units controlled by militia.

Internationally, Aspo foresees governments abandoning negotiations to lower carbon emissions, causing carbon dioxide levels to increase to dangerous levels, setting the course for catastrophic, irreversible climatic conditions later in the century.

Renaissance

Government establishes energy-saving quotas for its departments, new regulations to ensure energy-efficient buildings and declaring coal a national asset.

Aspo says energy can be saved as business is increasingly conducted over the internet and industries are re-tooled in favour of technologies using renewable energy resources.

Agriculture is encouraged to become more localised, small-scale and labour-intensive and to use biofuels.

Government encourages a limit on population growth.

South Africans reduce their use of fossil fuels, complement existing nuclear power with renewable energy and change to highly energy-efficient appliances.

Transnet develops a sustainable transport system using energy from renewable resources and electrical light-rail systems are installed in cities.

New urban and rural planning creates self-sustaining communities, including "eco-villages", where living and work spaces are integrated so that people can commute by walking or cycling. -- Energy Futures for South Africa, Aspo

Source: http://www.mg.co.za/article/2008-05-26-the-end-of-oil-is-nigh

---

6. African Energy News

"International Power, CIC Can't Finish Botswana Plant (Update3)"
By Stewart Bailey and Ron Derby
Bloomberg

23rd of June 2008

International Power Plc and CIC Energy Corp. failed to agree on terms with a construction contractor, forcing them to consider cutting the size of a planned $9.5 billion power plant in Botswana and further pressuring electricity supplies in southern Africa.

The partners are examining alternatives for the 2,400- megawatt project after their preferred contractor refused to take on certain undisclosed risks, Erica Belling, a spokeswoman for Toronto-based CIC, said today. South Africa's Eskom Holdings Ltd. and Botswana Power Corp. were expected to buy the plant's output, she said.

South Africa, the world's largest producer of ferrochrome and precious metals, faces a shortage of electricity-generating capacity after faster-than-expected economic growth and a failure to invest in new capacity. The shortages led to blackouts and shut down mines for almost a week in January.

``It's an open question as to what the plant will look like and we'll know more in the weeks ahead,'' Belling said in an interview from Toronto. The capacity from the coal-fired Mmamabula project has been factored into Eskom's supply planning, she said. CIC said it planned to supply the plant with coal from its Mmamabula field.

Eskom, Africa's largest electricity provider, has said the power shortages will last until at least 2012. The utility is building its own new power stations and is revamping others that were closed while the company had surplus power.

``In the long term, there may be an impact,'' said Fani Zulu, a spokesman at Eskom, which planned to buy 75 percent of Mmamabula's power. ``An alternative needs to be developed'' by South Africa and Botswana, he added.

Facing Cuts

South Africa will have to make a decision on alternatives ``pretty fast,'' or it will face having to cut supplies to power-intensive industries like ferrochrome and aluminum smelters, John Meyer, a mining analyst at Fairfax Plc in London, said in a telephone interview.

CIC fell C$4.62, or 45 percent, to C$5.73 at 3:58 p.m. in Toronto trading, its biggest-ever drop. The stock has plunged 65 percent over the past year. International Power dropped 1.5 pence to 423.25 pence in London trading.

Failure to reach an agreement on the project's risks this month caused CIC and International Power to forgo scheduling the manufacturing of the plant's boiler and turbines, Belling said. Opting for a plant with less capacity will provide more choices among contractors and increase the likelihood that a single one will agree to manage the entire project, she said.

`Desperate Need'

``South Africa is in desperate need for new power supply, and the project is likely to proceed eventually, even at a reduced level," Lakis Athanasiou, a London-based analyst at Evolution Securities Ltd., said in an e-mailed note today. ``However, there are likely to be more delays and risk has increased."

International Power said the company is seeking alternative approaches to the project with a ``risk-reward balance" in line with the company's investment criteria. CIC said one alternative under consideration would result in a smaller power station.

In February, CIC projected awarding a construction contract for Mmamabula by the end of this month to bring the project online by 2013. It created a short list of construction companies bidding to build the plant after a tender process that began in 2006.

Source: http://www.bloomberg.com/apps/news?pid=20601116&sid=aUC9EGhbTfWs&refer=africa

"S.Africa eyes Mauritania oil, boosts ties"
Reuters
19th of June 2008

NOUAKCHOTT, June 19 (Reuters) - South Africa is interested in exploiting oil reserves in new producer Mauritania and will open an embassy this year in the West African country to step up bilateral relations, South Africa's energy minister said.

"It would be cost effective if we will buy the oil in Africa, so we are interested in Mauritania's oil and we have indicated that," South Africa's Mineral and Energy Affairs Minister Buyelwa Sonjica told Reuters in Nouakchott.

Mauritania began producing crude oil in early 2006, forecasting output of 75,000 barrels per day (bpd) from the offshore Chinguetti field opened by Australia's Woodside (WPL.AX: Quote, Profile, Research) and now operated by Malaysia's Petronas [PETR.UL].

Difficulties extracting oil from the field's complex reservoir structure have resulted in Chinguetti's output falling below 15,000 bpd. But other companies, including French major Total (TOTF.PA: Quote, Profile, Research) are prospecting in other parts of the large, mostly desert, country and hopes are high.

South Africa has little known oil potential and relatively small gas reserves, but it has broad expertise in the fields of energy and mining.

The two countries signed an agreement last November to cooperate on energy affairs, including on skills and training….

Read the rest at: http://uk.reuters.com/articlePrint?articleId=UKL1920148920080619

"Funders Gather In London to Discuss Inga Project"
By TheSouthernAfrican.com
21st April 2008

JOHANNESBURG, SA (Engineering News) - The inaugural financiers' conference for the much-vaunted Inga 3 hydro-electric project, proposed to be sited on the mighty Congo River in the western Democratic Republic of Congo (DRC), will take place in London on Monday and Tuesday next week. The project is conceived as the first stage within the far larger 'Grand Inga' scheme, which project proponents believe could deliver up to 75 000 MW of much needed low-carbon electricity over the next two to three decades.

Inga 3, itself comprising four parts, could deliver up to 4 500 MW of electric power by 2015, some of which could be supplied to power-stretched South Africa through a new-generation 800 kV high-voltage, direct-current transmission system, which would have to cross five borders.

The promoters hope that construction will begin during 2010 should funding become available.

Western Power Corridor (Westcor) CEO Pat Naidoo, who heads the Botswana-based utility driving the initiative, reports that a preparatory meeting will be held over the weekend ahead of the funding workshop, under the stewardship of the secretary general of the World Energy Council (WEC), Gerald Doucet.

This meeting would involve high-level representatives from the utilities and governments participating in Westcor, which falls under the Southern African Power Pool and has been set up as a joint venture owned by the power utilities of Angola (ENE), Botswana (BPC), DRC (Snel), Namibia (Nampower) and South Africa (Eskom).

"There is a lot of interest in the project and we are increasingly confident that we will be able to raise the $5-billion to $6-billion required [for Inga 3]," Naidoo revealed at a gathering organised by the South African National Energy Association ahead of his departure for the UK.

He acknowledges, though, that there is still some skepticism about the project, given that it has been on the continent's electricity agenda for more that three decades.

But he argues that the difference this time around is the confluence of supportive energy, environmental and political factors that have hitherto been absent. Most notably, the emerging peace and stability in the sub-region, the prevailing electricity crisis in South Africa, and a desire among the development finance institutions to bankroll low-carbon electricity initiatives.

The project has been elevated to 'Presidential priority' status in both the DRC and South Africa, with Presidents Joseph Kabila and Thabo Mbeki having been briefed on developments during the recent binational commission, which took place in Pretoria in early April.

Speaking after that meeting, Mbeki indicated that both countries were keen to accelerate processes that

would enable the region to offer the Inga 3 project to potential investors and development finance institutions.

It is anticipated that the project could be officially launched at the World Economic Forum to be held in Cape Town in June.

Initially, Westcor will be seeking to raise $30-million to complete the bankable feasibility study for the hydro scheme itself, as well as a further $30-million for the detailed design of the transmission system.

It has already received numerous expressions of interest from leading engineering organisations keen to participate in the detailed feasibility studies, which Westcor wants to see finalized during either 2008 or 2009.

The project is also robust enough to be advanced on commercial terms, with the power purchase agreements from all five shareholders underpinning its financial viability.

However, Naidoo adds that there is also real potential to attract energy-intensive investment into the West Coast as anchor offtakers, hinting to preliminary talks with BHP Billiton, which currently operates aluminium smelters in South Africa and Mozambique.

The project, Naidoo enthuses, could provide low-cost, reliable and affordable energy into an increasingly power-hungry territory. He calculates that the electricity could be sold at around US5c/kWh, which would yield yearly revenues of $1,75-billion once the facility was producing at a capacity of 4 000 MW.

“So there is a strong commercial basis for this project and it has the potential to entirely redefine the economies of the West Coast of Africa,” Naidoo concludes.

Source:
http://thesouthernafrican.com/index.php?option=com_content&task=view&id=1984&Itemid=38

"Energy Projects to Gobble N$10bn"
By Petronella Sibeene
New Era
12th of May 2008

NamPower will need about N$10 billion in the next five years to boost its efforts to counter acute power shortages in the country.

Namibia is facing a critical energy crisis as South Africa, Namibia's main power supplier, early this year announced it could no longer feed its trading partners regularly due to a rise in local power demand.

Nampower Manager for Marketing and Corporation Communications, John Kaimu, told journalists at

Ruacana during the weekend that the N$10 billion will be mainly raised through bond listing, concessionary and commercial loans, own equity and Government equity injection of N$1 billion.

Sourcing funds might not be a problem because, according to Kaimu, "NamPower is the first Namibian owned enterprise to be Fitch rated. It has an investment grade."

Government in its 2008/9 budget allocated N$610 million to NamPower for emergency projects.

"The money is to cater for emergency generation and to ensure that no major power interruption is experienced in the country," Kaimu told New Era.

Emergency projects include the installation of 50-megawatt diesel generators at Paratus in Walvis Bay. The project regarded as the first phase of such activities will be implemented in the next five to six months, Kaimu said.

Installation of one diesel generator will cost NamPower approximately N$500 million. The second phase to be undertaken within 12 to 18 months will see the installation of an additional 100-megawatt generator at the coastal area.

"All these are measures aimed at minimising load-shedding," Kaimu added.

Namibia has a power generation capacity of 384 megawatts with the maximum demand standing at 449 megawatts. Demand is forecast at 1400 megawatts by 2030.

The country's backbone generation station remains the Ruacana Hydro Power Station that generates 63 percent of the country's capacity, with 37 percent being thermal power generation.

Namibia remains an insignificant player in power generation in the SADC region, falling among the few countries that make up 4.4 percent of power generators in the region.

South Africa generates 80.4 percent of electricity in SADC with Mozambique generating 5 percent, Zambia 3.6 percent, Zimbabwe 4.1 percent and Democratic Republic of Congo (DRC) 2.6 percent.

Kaimu said power demand in SADC is increasing at the rate of three percent (1200 megawatts) annually....

Read the rest at: http://allafrica.com/stories/200805120899.html

"Africa not using enough renewable energy: experts"
AFP
5th of June 2008

CAPE TOWN (AFP) — Solving Africa's power crisis will require greater energy efficiency and countries making better use of renewable resources, the World Economic Forum on Africa heard

Thursday.

The continent, where 600 million people still don't have electricity, has to think of better ways to promote energy efficiency while reducing enormous losses of energy from people illegally plugging into the electricity grid.

Pierre Gadonneix, chairman of Electricite de France, one of Europe's largest energy players, told delegates in Cape Town that Africa had the unique solution of vast sources of renewable energy sources at its disposal.

"It is clear there is not enough renewables used in Africa when you think about what what is possible with the wind, with the sun. You have too many countries in which there is no policies about renewables."

Africa is at the mercy of the global triple threat of fuel, finance and food, delegates to the conference heard earlier, and as economic growth soars on the continent, available energy is rapidly proving insufficient.

....Gaddoneix said energy was not a commodity like any other where normal rules of competition applied as it was an essential good, however people had to face up to the fact that energy was expensive.

"Energy is expensive, whatever happens it is going to be more expensive. This is reality ... because oil is expensive."

Donald Kaberuka, president of the African Development Bank, said being more energy efficient was the "alternative fuel" everybody was looking for....

Read the rest at: http://afp.google.com/article/ALeqM5jcNUSb-kBHXr88jOWGawI2IPvaJQ

---

7. Events

JULY 2008

XIV CONGRESS OF THE SOUTH AFRICAN SOCIOLOGICAL ASSOCIATION (SASA) SOCIETY - POWER AND THE ENVIRONMENT: CHALLENGES FOR THE 21ST CENTURY
Venue: University of Stellenbosch, Stellenbosch, South Africa
Date: 7-10 of July
Contact: Dr Heidi Prozesky, SASA Secretary, University of Stellenbosch
Tel: +27 21 808 2092
Website: www.sun.ac.za/sociology

NATIONAL ENEGRY BILL WORKSHOP

Venue: Johannesburg, Gauteng
Date: 15th of July
Contact: Makoma Lekalakala, SECCP
Tel: +27 11 339 3662
Email: seccp@earthlife.org.za

AUGUST 2008

WOMEN's ENERGY FORUM
Venue: Johannesburg, Gauteng
Date: 7-8 of July
Contact: Makoma Lekalakala, SECCP
Tel: +27 11 339 3662
Email: seccp@earthlife.org.za

IDRC DAVOS 2008
Date: 25–29 of July
Venue: Davos Switzerland
Website: www.idrc.info

OCTOBER 2008

ENERGY EFFICIENCY AT WORK
Date: 2–3 of July
Venue: Emperors Palace, Gauteng, South Africa
Contact: Christina den Heijer, The Southern African Association for Energy Efficiency
Tel: 018 294 7174
E-mail: cemanager1@intekom.co.za

INTERNATIONAL BUSINESS EXCHANGE FORUM – INTERNATIONAL TRADE FAIR AND CONFERENCE FOR RENEWABLE ENERGY
Venue: 9-12 of July
Augsburg, Germany
Contact: Anja Ungemach, International Department, REECO GmbH, Unter den Linden 15, 72762 Reutlingen, Germany
Tel: +49 (0)7121 30160 EXT: 137
E-mail: ungemach@energie-server.de
Website: www.energy-server.com

INDUSTRIAL ENERGY MANAGEMENT TRAINING COURSE (IEMT) and ENERGY AUDIT TRAINING COURSE (EAT)
Date: 13-16 of July
Venue: Birchwood Executive Hotel & Conference Centre, Gauteng
Contact: Christina den Heijer
Tel/Fax: +27 (0) 18 294 7174

Cell: +27 (0) 82 334 0923
E-mails: cemanager1@intekom.co.za and christina@eventstraining.co.za

CERTIFIED ENERGY MANAGER COURSE
Date: 13-17 of July
Venue: Birchwood Executive Hotel & Conference Centre, Gauteng
Contact: Christina den Heijer
Tel/Fax: +27 (0) 18 294 7174
Cell: +27 (0) 82 334 0923
E-mails: cemanager1@intekom.co.za and christina@eventstraining.co.za

END----------