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A MOVE TOWARDS RENEWABLE ENERGY[1]

Governments and businesses around the world are placing increasing value on the generation and use of renewable energy. As the South African regulatory environment changes to incentivise investment in technologies and initiatives which increase the use of renewable energy, new opportunities for business emerge. This circular explores some of the regulatory schemes which may influence business decisions now and in the future.

BACKGROUND

Signatories to the 1992 UN framework convention on climate change recognized the need to combat global warming and at the Koyoto conference in 1997 agreed to the Kyoto protocol (ñKPò). In terms of the KP, the member states (of which South Africa is one) took on individual targets with a view to reducing their greenhouse gas (ñGHGò) emissions during the target period of 2008-2012, the first commitment period. This period will soon reach its conclusion and it is anticipated that the second commitment period will be set up at the 17th Conference of the Parties (ñCOP17ò), which is to be held in Durban on 25 November 2011.

[1] The information contained in this circular has been taken from a number of sources including: Financial Mail: The Green Report (October 2011), Greenpeace- The Advanced energy [r]evolution: A sustainable energy outlook for South Africa, Kerry Dimmer- Oct/Dec publication of JSE, Gary Pienaar & Smita Nakhooda- The Great Policy Disconnect (06/12/2010), SAinfo (20/10/20), Hilton Trollip & Andrew Marquard- Prospects of Renewable Energy in South Africa, Terence Creamer: Engineering News (28/10/2011), Department of Environmental Affairs Website, among others.

South Africa has appeared to move slowly in comparison to the rest of the world in respect of Renewable Energy ("RE") generation, with no significant easing of our reliance on energy generated through the burning of coal. RE harnesses naturally occurring non-depletable sources of energy, such as solar, wind, biomass, hydro, tidal, wave, ocean current and geothermal energy to produce electricity, gaseous and liquid fuels, heat or a combination of these energy types. The rest of the world has seen large investments in RE generation and it has been reported that in 2008, worldwide investment in RE exceeded investment in conventional electricity generation. Thus we see a global movement away from dependence on fossil fuels.

PAST REGULATORY DEVELOPMENTS IN SOUTH AFRICA

The 2003 White Paper on Renewable Energy ("White Paper 2003") set a target of 10 000 GWh's[2] of RE contribution to final energy consumption by 2013. This goal is approximately 3% of Eskom's current capacity. Further, the Department of Minerals and Energy committed South Africa to developing a practical implementation strategy on RE.

In March 2009, the National Energy Regulator of South Africa ("NERSA") released Regulatory Guidelines in terms of which the Phase I RE Feed-In Tariffs ("REFITs") were proposed. These were guaranteed prices for electricity supply that covered the cost of generation of RE along with a profit to encourage investment. Eskom would be obliged to purchase the energy at a specific price set out in a power purchase agreement yet to be published. This program would only cover RE generation and the resulting energy would be connected to the Eskom grid. The REFITs were aimed at attaining the 2013 target of 10 000 GWh and at delivering sustained long term growth for RE by promoting its medium and long term competitiveness with other energy sources, such as coal.

A Consultation Paper followed the NERSA Guidelines in July 2009, which provided qualifying principles and tariffs for additional RE technologies and defined the terms of the RE Power Purchase Agreement. The REFITs created excitement among prospective RE

[2] The gigawatt-hour (GWh) is a unit of energy equivalent to one gigawatt (1 GW) of power expended for one hour (1 h) of time.

generators and held the promise of assisting RE-players to compete in a coal-dominated market. It is estimated that investments in the amount of R500 Million were made as a result of the proposed REFITs.

With South Africa hosting COP17, the country appears to have suddenly made urgent strides in RE. During February 2010 the South African government addressed a letter to the secretariat of the United Nations Framework Convention on Climate Change (ñUNFCCCò) making a seemingly unattainable commitment: South Africa is to reduce its GHG emissions by 34% by 2020 and by a further 8% by 2025. The commitment was made conditional upon South Africa receiving international aid and support[3].

Further, in early 2010, the Department of Minerals and Energy published draft regulations on selection criteria for RE projects under the REFIT program. The regulations included rules relating to selection criteria that would be used to select Independent Power Producers (ñIPPôsò) under the REFIT program. These draft regulations together with a substantiated version published later established a procurement system, whereby prospective RE generators would have to bid for a stake in RE generation.

The scope for participation in the REFIT program therefore appeared to be narrower than was initially intended. The Initial REFIT model was further eroded when in early 2011, NERSA announced substantial cuts of between 7 % and 41% in the values of the REFITs as in its opinion there had been a substantial decline in the costs of RE generation.

In May 2011, Government published the Integrated Resource Plan ,or IRP 2010-2030 (ñIR Planò). In terms of the IR Plan, South Africa is to generate 21 534 MegaWatts (ñMWò) of RE by 2030. The IR Plan is ñan operational framework dealing with the most appropriate energy mix for future economic and social development and new investments in a highly capital-intensive electricity infrastructureò[4].

In June 2011, the REFIT program was declared to be illegal and anticompetitive by the

3 Financial Mail: The Green Report (October 201) PG: 16
4 Gary Pienaar & Smita Nakhooda- The Great Policy Disconnect (06/12/2010)

National Treasury and was abandoned.

CURRENT INITIATIVES

Recently, Government released an RE Independent Power Producer Procurement Program (ñIPPPPò). The new program calls for an open bidding system in contrast to the one proposed under the REFIT program, where bids were to be made against ña fixed, upfront tariffò[5]. In terms of the IPPPP, RE generators will bid on a price to be paid by the buyer (Eskom). In total contrast to the REFIT program, 70% of the award will be based on ópriceô, while 30% will be based on meeting economic development criteria relating to the impact on local manufacturing, community development and BEE.[6]

According to the South African Alternative Energy Association, the Department of Minerals and Energy has allocated capacity across various RE technologies, with 1 850 MW set aside for onshore wind, 200 MW for concentrated solar thermal, a further 1 450 MW for solar photovoltaic, 12.5 MW for both biomass and biogas, 25 MW for landfill gas capacity, 75 MW for small hydro and 100 MW for small-scale Independent Power Producer projects producing less than 5 MW of energy.

The first bids were due on 4 November 2011, with the preferred bidders to be announced on 25 November 2011 when COP17 commences. Bidders who were unable to submit their bids by the first cut off date will be afforded opportunities to submit bids as part of the second tender (the proposed cut off date is 5 March 2012), the third tender (the proposed cut off date is 20 August 2012) or further future tenders. However, once the allocated wattage for a particular technology has been secured by bidders, the bid for that technology will be closed.

THE WAY OF THE FUTURE

During October 2011, Government published the White Paper on National Climate Change Response (ñWhite Paper 2011ò). The White Paper 2011 outlines South Africaôs two-fold

5 Financial Mail: The Green Report (October 2011)

approach to the mitigation of climate change:

1. the curbing of emissions; and
2. managing development and working towards the eradication of poverty.

The White Paper 2011 states that the mitigation of climate change is a national priority and that the Government is committed to actively engage in international negotiations under the UNFCCC and the KP.

The White Paper 2011 identifies the defining of carbon budgets for significant GHG emittors as being a key instrument for reducing South Africaôs GHG emissions. It has prescribed a period of two years (ending October 2013) for South Africaôs key carbon-emitting sectors, including energy, transport and mining, to finalise their carbon budgets which are to be in line with South Africaôs goals and undertakings with regards to GHG emission reductions.

It is intended that Government ñé actively consult with industry on the development of the [carbon budgets] to identify an ñoptimal combinationò of mitigation actions at the least cost to, and with the most sustainable development benefits for, the affected sectors and the economy as a whole.[7]ò

It also prescribes the use of carbon taxes, emissions trading schemes and incentives in order to obtain its goals.

- <u>Carbon Taxes</u>

  The White Paper 2011 identifies the need for government to levy taxes on those entities responsible for emitting significant amounts of carbon dioxide. Accordingly, carbon taxes are an attempt by Government to minimise key sectorsô carbon emissions in light of its undertaking to UNFCCC to cut GHG emissions by 42% by 2025.

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6 Financial Mail: The Green Report (October 201) PG: 16
7 Terence Creamer: Engineering News (28/10/2011)

Carbon taxes were first canvassed by the Government when the National Treasury published a paper in December 2010 titled: ñReducing GHG emissions : The Carbon Tax Optionò. They are a medium to long term economic tool which is intended to have a two-fold purpose:

1. to alter emission behaviour; and
2. to generate a pool of income to assist in the implementation of future mechanisms and objectives.

The National Treasury proposed an initial tax of R75 per ton of carbon dioxide emitted to be implemented in 2012. This tax is set to rise steadily to R200 per ton of carbon dioxide over the years following implementation.

- Carbon Trading

The White Paper 2011 also specifies that carbon markets are a good economic mechanism to reduce emissions. The National Treasury is mandated to investigate the feasibility of an emissions trading scheme as a medium to long term response to climate change.

ñCarbon markets provide a way for governments to reduce GHG emissions by placing a cap on total annual emissions and letting the market assign a monetary value to any shortfall through trading. Companies and organizations determine the most cost-effective manner of reducing their emissions, either through investing in ócleanô machinery and practices, or by purchasing credits from another organization which has excess capacityõ[8].

Emission markets have been in operation since the early 1990s. The JSE Limited is reportedly in the early stages of developing a concept framework based on research into climate change and carbon markets.

- Incentives

  Eskom has embarked on an intensive energy saving drive in an effort to reduce consumption of non-renewable energy by between 1074 MW and 4.1 TWh over the next three years. As part of this energy saving drive, Eskom has established an Integrated Demand Management (ñIDMò) division to:

  (a) ensure short-term security of electricity supply through coordinating and consolidating the various initiatives aimed at optimising energy usage and balancing electricity supply and demand; and

  (b) promote the implementation of more energy-efficient technologies, processes and behaviours amongst all consumers.

  As part of an initiative under the IDM, Eskom has established an energy service company (ñESCoò) program whereby ESCos accredited by Eskom are invited to submit proposals for achieving reductions in electricity consumption and to scope and execute the proposed projects which are approved by Eskom. ESCos operate by establishing a three-way partnership between themselves, Eskom and the customer for whom the consumption-reducing technologies are to be implemented. ESCos use their knowledge of IDM technologies to determine the best way of obtaining consumption reductions at a particular customerôs facilities.

  In terms of the ESCo program, Eskom supports ESCo projects by funding up to 100% of the financial benchmark value for viable energy efficiency projects according to a ñSet Financial Benchmarkò.

  The current Set Financial Benchmarks are as follows:

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[8] Taken from article by Sustainability SA: Carbon Trading

Programmes technologies	Benchmark values
Lighting & HVAC	Up to R5.2m/MW
Hot Water	Up to R6.3m/MW
Demand Response	Up to R3.5m/MW
Compressed Air	Up to R4.4m/MW
Process Optimisation	Up to R5.2m/MW

Furthermore and subject to the ESCo project approval, Eskom has agreed to offer up to R5.25 million for each 1MW saved as a result of any ESCo initiative. ESCo initiatives include solar water heating programmes, wind turbine programmes and any other energy-efficient technologies.

CONCLUSION

Apart from the anticipated carbon tax and carbon credits trading initiative which are worth planning for, there are current energy-saving and RE regulatory initiatives which may make for a worthwhile investment for you or your business. The window of opportunity for investments in these current initiatives is open now and businesses should act quickly to take advantage of it.

Should you require further advice please contact any member of the commercial team at Cox Yeats.