



Energy efficiency in the **global & South African context**

Climate change: The Cancun Agreement

Climate change and its accompanying sustainability challenges is a global phenomenon. The United Nations Climate Change Conference in Cancun, Mexico ended with the adoption of the Cancun Agreement in which countries agreed that they need to work to stay below a 2°C temperature rise by lowering emissions. The agreement also adopted enhanced financial and technological support as well as capacity building for developing countries, both in terms of mitigation and adaptation to climate change. Details of the Cancun Agreement are set out in the internet version of the report at www.eskom.co.za/annreport11/002.html.

South Africa continued to play an active role in the negotiations. Key national positions were: support for the multilateral process,

the continuation of the Kyoto Protocol and advocating a legally binding outcome for the climate negotiations at international level that would bind developed countries to economy-wide, quantified emission reduction commitments.

The eyes of the world will be on South Africa during the 17th meeting of the Parties of the United Nations Framework Convention on Climate Change (COP 17), which will be held in Durban from 28 November to 9 December 2011. Eskom is very proud to be a strong supporter of this conference, driving the issues around climate change both nationally and in the international arena. While this builds on the support for previous COPs, Eskom believes the impact of the COP programme is accelerating, and wants to make sure it is as supportive and pro-active as it can be.





Climate change in South Africa

At present, South Africa has no obligations to reduce greenhouse gas emissions, but is committed to sustainable development policies and measures. The country must contribute to global efforts to combat climate change, while ensuring the sustainability of its economy and society.

Eskom has been active in the international and national climate change policy development process. As such Eskom has aligned its medium- to long-term strategy and plans with South Africa's national climate change response policy development process. As part of the South African delegation to the international climate change talks, Eskom plays an advisory role to ensure the appropriate development of the future climate change regime taking into consideration growth, security of energy supply and the energy needs of South Africa, the Southern Africa region and Africa as a whole.

Government introduced a 2c/kWh environmental levy, applied to electricity generated from non-renewable energy sources, effective from 1 July 2009. This is treated as an inherent variable cost to the production of electricity from non-renewable sources, similar to fuel costs. The environmental levy was introduced as a separate charge for all tariffs. This levy will be increased to 2.5c/kWh from 1 April 2011. There will be no increases in the tariff allowed by the National Energy Regulator of South Africa for MYPD 2 as a result of this, as it will replace monies allocated in the MYPD 2 for road repairs.

The South African National Treasury issued a discussion paper in December 2010 for public comment entitled "Reducing Greenhouse Gas Emissions: The Carbon Tax Option". This builds on the previous draft policy paper issued by the Tax directorate

entitled "A Framework for Considering Market-based Instruments to Support Environmental Fiscal Reform in South Africa" in April 2006. It is also to be read in conjunction with the draft Green Paper on a national climate change response strategy produced by the Department of Environmental Affairs in November 2011. Three carbon emissions tax options are presented for consideration:

- Direct tax on actual measured emissions
- Fossil fuel input tax – based on the carbon content of fuels
- Fossil fuel output tax

The proposal for such a tax is being made in support of government's aspirations to address greenhouse gas emissions reductions in the country. The aspiration is to achieve a peak in national greenhouse gas emissions between 2020 and 2025, followed by a plateau in emissions and ultimately a decline in absolute emissions.

This is conditional to international financial support, technology transfer and a global agreement on a climate change regime at the international negotiations. The most important elements to achieve a reduction in national greenhouse gas emissions are financing, monitoring, reporting and long-term certainty, particularly when energy infrastructure is under consideration. Planning and construction lead times for the low carbon emitting, base-load options required to achieve absolute emissions reductions may be as long as 10 years and are highly capital intensive.

While a carbon tax will penalise carbon emissions it may not bring about the technology choice that is required to address South Africa's emissions. The greatest concern is that the use of domestic regulatory or tax instruments places the financial burden on domestic consumers. A robust macroeconomic study is important in determining the effect of such a tax on the economy.

Financial sustainability

Treasury has focused on export credit agencies, development financing institutions and local debt issues to fund the current year's requirements. These will continue to be part of the mix going forward. During January 2011, Eskom issued a US dollar bond and raised USD1,75 billion (R12 billion). In addition, Eskom has reached financial close on a number of the export credit agency-backed loans, with funds now flowing from these facilities.

Other initiatives currently being pursued are completing the Clean Technology Fund financing package, supported and co-financed with other development finance institutions (to finance the Sere wind farm and the Upington concentrating solar plant project). To this end, a mission consisting of interested parties (the African Development Bank, France's AFD, the European Investment Bank, the German government's investment bank KfW and the World Bank) took place during the second week of February 2011 to appraise the projects concerned.

The response from the potential lenders was positive, and it is anticipated that financing associated with the wind project will be finalised by the end of June 2011, to support the acceleration of the wind project in support of COP17.

South Africa's response to climate change

South Africa will host the next round of climate change negotiations in Durban in December 2011. South Africa has published the Green Paper on National Climate Change Response as well as a discussion paper on reducing greenhouse gas emissions through a carbon tax for public comment in 2011.

The green paper encompasses South Africa's aspirations for sustainable development – prioritising poverty alleviation albeit within the context of sustainable development, with benefits to the climate. The country is also very vulnerable to the adverse



effects of climate change and the paper focuses on the adaptation measures and strategies required by various sectors.

Government's Integrated Resource Plan (IRP) was published by the Department of Energy in 2010. The recommended "revised balanced plan" is geared towards a low carbon future and aligned with South Africa's long-term mitigation scenarios. It allows greenhouse gas emissions to peak, plateau and decline in line with government's aspirations.

In the past, South Africans tended to take energy for granted but there is now a desperate need for more sustainable use of energy in the country. With electricity reserves at dangerously low levels, it Eskom and all electricity consumers have to examine opportunities for improved efficiency to optimise the use of existing capacity. Electricity has long been a cheap and abundant resource in South Africa. This is no longer the case. The outstripping of electricity supply by demand and escalating electricity prices, along with growing environmental awareness, are spurring more people to consider their impact on their surroundings.

The 49M Movement

One change that is desperately needed in South Africa is the more sustainable use of energy. Eskom has taken up the challenge and is leading a campaign to unlock the potential of 49 million South Africans to reduce their energy consumption and think of energy in a sustainable manner.

The "49M" movement, launched and endorsed in March 2011 by Mr KP Motlanthe, the Deputy President of our Republic, together with the Ministers of Public Enterprises and Energy, is material to the continued mitigation of an extremely tight situation of supply versus demand.

Eskom values the support from and partnerships with various key customers and organisations for this initiative. It is imperative that South Africa pulls together as a nation to harness its collective power in saving energy.

