FACT SHEET – Proposed $3.75 billion World Bank Loan to Giant South African coal plant.

What is the project?

Eskom is state owned energy company of SA. It is applying for R $3.75 billion from the World Bank, to improve its energy infrastructure and efficiency programmes. The loan would largely be used to support construction of an 4.8 gigawatt coal fired power station, known as the 'Medupi station' in Lephalale, in Limpopo Province. Construction of parts of the plant has already begun.

http://www.eskom.co.za/live/content.php?Item_ID=4989

If the plant is built to its full specification, it will be the fourth most carbon intensive, as well as one of the largest, power plants in the world. For a comparative list of the world's power stations and their emissions, see here http://carma.org/plant/detail/27852

What would its environmental impact be?

According to the Centre for Global Development, the station would emit around 29 million tonnes of carbon dioxide per year (SA emission in 2007 were around 452 million tonnes of CO2, according to data supplied by the IEA to the Guardian). Friends of the Earth put the annual emissions of Medupi slightly lower, at 25 million tonnes per year.

http://www.guardian.co.uk/environment/datablog/2009/dec/07/copenhagen-climate-change-summit-carbon-emissions-data-country-world

The SA power sector is already one of the most carbon intensive in the world. SA is currently responsible for 40% of the entire total of African emissions, with a per capita emission at around 9-10 tonnes per person; higher than that of many European countries and ten times that of most other African countries.

Demand for coal is also likely to drive the opening and/or expansion of coal mines in SA, with devastating local environmental impacts. If all Eskom's plans go ahead, including not just Medupi, but another even larger new coal-fired power station at Kusile, and a range of life-extensions and expansions, then the company's own consultants anticipate that 35 new mines will be required to support them[1]. Recent plans to expand SA mining operations into sensitive environments have caused international protests. http://www.birdlife.org/news/news/2008/11/wakkerstroom_mining.html

The proposed power plant would be extremely water-hungry, taking up essential water supplies in a country where scarce water resources are already compromised by mining activities. The impacts of mining on SA water supplies are well-documented. http://www.sundayindependent.co.za/?fSectionId=&fArticleId=vn20080210084612303C164061

What would the impacts be for the South African economy?

SA has suffered several severe energy shocks in recent years, including a black-out in 2008, which caused widespread panic and significant damage to the SA economy. This reflects many years of little or no investment in energy infrastructure.

However, the current proposal is seen by many as an attempt to sustain very low-cost energy supplies to SA's intensive and extractive industries, rather than an effort to address the underlying energy needs of communities. SA's mines and smelting operations use around 60% of the countries energy[2], supplied under contract conditions which make it some of the cheapest power in the world.

In arguing the case for the WB loan, Eskom and the SA Government have suggested that new coal-fired capacity will enable SA to guard against future energy shocks, support industry and sustain growth. This, in turn, they claim with assist SA development and alleviate poverty. http://www.groundwork.org.za/Publications/EskomFinalDocs/WBEskomloanfactsheet.pdf

Critiques of this position take a very different view, which suggests that the project will NOT support sustainable development and poverty alleviation, but instead will load additional costs onto ordinary SA energy customers, already facing higher charges and significant energy access challenges. http://www.groundwork.org.za/Publications/EskomFinalDocs/ResponsetotheWorldBankpanelreportandFactSheet.pdf

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The World Bank and Eskom: Banking on Climate Destruction (pdf), a December 2009 report by David Hollowes of GroundWork/Friends of the Earth-South Africa.

[2] The World Bank and Eskom: Banking on Climate Destruction (pdf), a December 2009 report by David Hollowes of GroundWork/Friends of the Earth-South Africa.

They point to the WB's own analysis which suggests that support for fossil fuel and extractive projects has little benefit for poverty alleviation. http://www.ifc.org/eir

Moreover, evidence from the historical operation of SA's energy system shows that whilst it is the extractives who benefit from cheap electricity, the cost of constructing the coal plant is likely to be borne by all SA citizens, increasing rather than decreasing fuel poverty.

What are the WB being asked for?

Eskom are asking for $3.75 billion, of which they propose $3 billion is spent on the Medupi plant, with the additional money going towards two small renewable projects (100 mgw each of wind and solar), and towards an energy efficiency programme. There is now some confusion about whether the solar project will go ahead.

How does this work with SA climate policies?

South Africa has put forward plans to reduce its emissions by 34% against business as usual by 2020; an ambitious goal which has put it 'in the lead' in climate change policies amongst large emerging economies. In announcing its climate policy in 2008, the SA Government indicated that the countries emissions would peak around 2020-2025, and would then gradually decline, largely through a switch from unabated coal, to nuclear, renweables and coal with CCS. http://www.southafrica.info/about/sustainable/climate-300708.htm

However, this is barely reflected in the proposals of its power company for expansion until 2026. Eskom's 'new build' proposals as presented by its CEO in January 2009 are shown in the table below. They contain only 100 mgw of wind capacity.

By 2026, Eskom predict in their 2008 Annual Report that far from moving towards a largely low-carbon energy system, only 2% of its power would be provided from renewable sources.

Future plans for the energy sector were outlined in more detail in an unpublished draft 20-year Integrated Resource Plan (IRP) in September 2009, produced by Eskom and the SA Energy Ministry. http://www.mg.co.za/article/2010-01-08-eskoms-secret-tariff-plan-revealed.

At the end of last year, the SA government approved an interim five year energy plan, pending consultations on a longer term plan for the sector, recognizing the need to address the longer term implications of electricity development. This suggests that they do not accept the Eskom/IRP model unreservedly; however, the nature and scale of the developments being proposed under the WB loan DO reflect the high-coal, low-renewables scenarios in the original plan.

Are there alternatives to coal?

SA has abundant renewable energy resources, including onshore and offshore wind and solar power. These have been assessed by the Government, as part of the development of its climate policies.

http://unfccc.int/files/meetings/seminar/application/pdf/sem_sup1_south_africa. Combined with energy efficiency measures and more decentralised energy provision, these resources offer the potential for SA to transition towards a low carbon power sector and economy, with appropriate financial support from developed countries.

The Government has recently introduced a feed-in tariff system designed to promote renewable energy generation.

http://www.nersa.org.za/UploadedFiles/ElectricityDocuments/REFIT%20Guidelines.pdf This policy is, however, at odds with the vision for power generation promoted by Eskom; possibly reflecting divisions within Government about the future direction of the power sector and environmental policies in SA.

Table 2: The new build: Eskom's current projects

	Technology	Name and location	Megawatts (MW)
Peaking Plant	OCGT	Ankerlig, Atlantis, Cape Town.	2,080
		Gourikwa, Mossel Bay, Western Cape.	
	Pumped storage	Ingula, Van Reenen, KZN / Free State.	1,352
		Tubatse, Limpopo / Mpumalanga.	1,500
	Wind	Sere	100
Total			**5,032**
Coal fired base plant	Expansion	Arnot	300
	Return to service of mothballed plant	Camden, Ermelo, Mpumalanga	1,520
		Grootvlei, Balfour, Mpumalanga	1,170
		Komati, Middelburg / Bethal, Mpumalanga	955
	New coal	Medupi, Lephalale, Limpopo	4,764
		Kusile, Witbank, Mpumalanga	4,800
Total			**13,509**

Source: *Eskom CEO Jacob Maroga: Presentation to the Media, 23 January 2009.*

How will the bank make its decision?

There is due to be a WB meeting on 8th April, at which the loan will be considered by share holders. In reality, no 'vote' will take place if it appears likely that shareholders cannot agree on the outcome.

So far, the US, who are the WB major shareholder, are reported to oppose the loan, but others including France have indicated they will support it. The UK Government say they have yet to decide – their position could tip the balance, as they are the major provider of international development assistance (IDA) to the Bank. Whilst they could push a head with a majority of share-holders supporting the project, it is unlikely they will wish to upset both the biggest donor AND the major share-holder, and so it is likely that if the UK say no, a decision will at least be postponed[3].

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The Bretton Woods Project have analysed how the bank makes decisions, here.
http://www.brettonwoodsproject.org/art-174885

This analysis suggests that postponement is most likely, if it looks like a sizeable proportion of the total voting shares will vote against (NB: US has around 17% share, and the EU around a third, the UK has around 4-5%,as do France and Germany*). So if it were just the UK and the US with doubts, they might go ahead – BUT, in they will not wish to make a decision which would upset the major IDA donor (UK) and major shareholder (US).

*Impossible to be precise as voting share is different in the different arms of the Bank - IBRD, IDA & IFC
http://go.worldbank.org/VKVDQDUC10