



SA Oil & Gas Funding Opportunities

Oil & Gas Indaba

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Section 1:

Standard Bank Overview

Standard Bank Group has a global presence operating in 17 African countries and 16 countries on other continents including the key financial centres of Europe, the Americas and Asia.

Key Messages

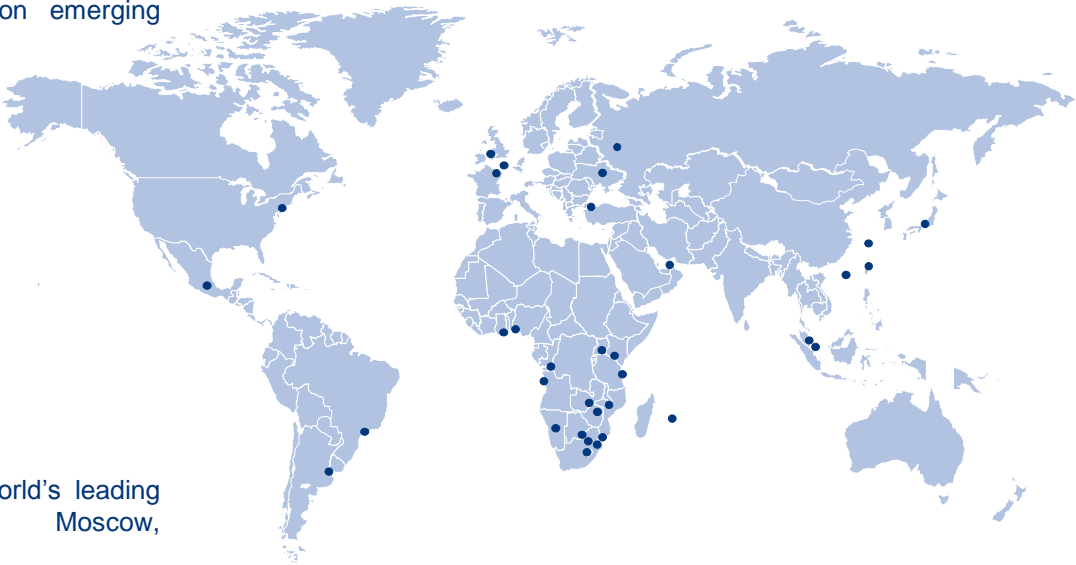
“Full service bank covering”

“Global reach in 33 countries”

“Relationship with ICBC provides international reach”

Standard Bank Group is a South African-based financial services company with a global presence operating in 17 African countries and 16 countries on other continents including the key financial centres of Europe, the Americas and Asia.

- African-based financial services group focused on emerging markets on global scale
- Full service bank covering
 - Investment banking
 - Corporate banking
 - Personal and business banking
 - Investment management
 - Life assurance
- Global reach in 33 countries with capabilities in world’s leading financial centers including London, Moscow, Sao Paulo, Hong Kong and Beijing
- Corporate and Investment Banking (“CIB”) provides services to corporate clients, financial institutions and international counterparties focused on emerging markets around the world
- Over 45,000 employees world wide
- Relationship with ICBC provides international reach and strengthens access to what will soon be the world’s largest economy



Africa	Rest of world	Key regional offices
<ul style="list-style-type: none">▪ 17 African countries▪ 712 branches in South Africa▪ 239 branches in the rest of Africa	<ul style="list-style-type: none">▪ 16 countries outside Africa	<ul style="list-style-type: none">▪ Offices in key regional financial centres including London, Moscow, Sao Paulo, Beijing, Hong Kong and Dubai

A selection of recent accolades awarded to Standard Bank...

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Recent Accolades



The Banker – 2010, 2009, 2008

- Deal of the Year Africa: Bonds (2010)
- Deal of the Year Africa: Capital Raising (2010)
- Deal of the Year Africa: Structured Finance (2010)
- African Bank of the Year (2009, 2008)
- Bank of the Year, South Africa (2009, 2008)
- Best Investment Bank from Africa (2009, 2008)
- Best Bank in Botswana, Lesotho, Malawi, Swaziland, Tanzania (2009)
- Deal of the Year for the Ruashi Copper Mining Project in DRC (2008)
- Deal of the Year - Botswana for National Development Bank BWP100 million 11.25% notes due 2017 (2008)
- Deal of the Year - DRC for the Ruashi Copper Mining Project (2008)
- Deal of the Year - Finland for Talvivaara Nickel Project US\$320m debt facility (2008)
- Deal of the Year - Germany for Kreditanstalt für Wiederaufbau NGN28.7 billion 8.5% notes due by 2011 (2008)
- Deal of the Year - Tanzania Electricity Supply Limited TZS300 billion syndicated loan (2008)
- Deal of the Year - Zambia Sugar Project (2008)
- Deal of the Year (South Africa) for the 20% investment by ICBC in Standard Bank (2008)
- Deal of the Year Award - Bahrain for Arcapita Bank US\$1.1b syndicated Murabaha facility (2008)
- Most innovative in Trade and Project Finance (2008)
- Ranked No 1 in sub-saharan Africa and No 106 in The Banker Top 1000 World Banks (2008)



Euromoney – 2010, 2009

- Best Investment Bank in Africa (2010)
- Best Investment Bank in Nigeria (2010)
- Best Bank in South Africa (2010)
- Best Equity House in Africa (2009)
- Lakatabu Expansion - Africa Industrial Deal of the Year (2009)
- MTN Uganda - Africa Telecoms Deal of the Year. (2009)
- Zain - Middle East Telecoms Deal of the Year (2009)



Africa Investor – 2009

- Best Africa Investment Bank (2009)
- Best Africa Research Team (2009)
- Infrastructure Deal of the Year for Gautrain (2008)



Environmental Finance Magazine - 2009

- Carbon Finance Deal of the Year for Camco-Standard Bank Structured Carbon Credits Transaction (2009)



African Banker – 2009, 2008

- Investment Bank of the Year, Africa (2009)
- Best Issuing House in Africa (awarded to Stanbic IBTC Bank) (2008)
- Deal of the Year - ICBC 20% acquisition of Standard Bank (2008)



Global Finance Magazine – 2009

- Best Debt Bank in Africa (2009)
- Best Foreign Exchange Provider in South Africa (2009)
- Best Investment Bank in Africa (2009)
- Best Investment Bank in Nigeria (2009)
- Best Investment Bank in South Africa (2009)






































EMEAFinance – 2009, 2008

- Best Investment Bank in Africa (2009, 2008)
- Best Investment Bank in Nigeria (awarded to Stanbic IBTC Bank) (2009)
- Best Natural Resources Deal in EMEA: Kayelekera Uranium project (2009)
- Best Oil and Gas Deal in Africa: Oando (2009)
- Best Project Finance Deal in Africa: Botswana Power Corporation (2009)
- Best Project Finance House in Africa (2009)

Standard Bank has won various awards that demonstrate our capabilities across the entire range of advisory and funding services in Africa





































Summary Oil & Gas Credentials (1/2)

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 <p>KrisEnergy Ltd. Thailand & Indonesia</p> <p>2010 US\$ 150,000,000 Acquisition Facility</p> <p>MLA, Facility Agent, Security Agent & Sole Bookrunner</p> 	 <p>PA Resources AB PA Resources Congo SA</p> <p>2009 US\$ 125,000,000 Senior Secured Facility</p> <p>Sole Mandated Lead Arranger & Book Runner</p> 	 <p>Total Kenya Limited</p> <p>2009 KES 4,680,000,000 Medium Term Facility</p> <p>Mandated Lead Arranger Facility & Documentation Agent</p> 	<p>Sabre Oil & Gas Holdings</p> <p>Ghana</p> <p>2009 US\$ 40,000,000 Short Term Facility</p> <p>Mandated Lead Arranger</p> 	 <p>Maurel & Prom Gabon</p> <p>2009 US\$ 255,000,000 Reserve Based Revolving Facility</p> <p>Mandated Lead Arranger</p> 	 <p>PA Resources AB PA Resources Congo SA</p> <p>2009 US\$ 30,000,000</p> <p>Bilateral Senior Facility</p> 
 <p>Transatlantic Petroleum Ltd.</p> <p>2009 US\$ 250,000,000 Senior Secured Borrowing Base Facility</p> <p>Mandated Lead Arranger, Bookrunner, Structuring Agent, Admin Agent, Collateral Agent, Technical Agent & Hedging Bank</p> 	 <p>Oando Exploration and Production Ltd Nigeria</p> <p>2009 US\$ 55,000,000 Senior Acquisition Facility</p> <p>Mandated Lead Arranger & Hedging Agent</p> 	 <p>Oando Exploration and Production Ltd Nigeria</p> <p>2009 US\$ 40,000,000 Mezzanine Acquisition Facility</p> <p>Mandated Lead Arranger & Hedging Agent</p> 	 <p>Tullow Oil Plc</p> <p>2009 US\$ 1,850,000,000 Senior Secured Revolving Borrowing Base Facility</p> <p>Arranger</p> 	 <p>Tullow Oil Plc</p> <p>2009 US\$ 150,000,000 Junior Secured Revolving Borrowing Base Facility</p> <p>Arranger</p> 	 <p>Petrominerales</p> <p>2009 US\$ 250,000,000 4-year Senior Secured Borrowing Base Facility</p> <p>Bookrunner & Mandated Lead Arranger</p> 
 <p>Indian Energy</p> <p>Indian Energy</p> <p>2009 US\$ Equity Investment</p> 	 <p>Indian Energy</p> <p>Indian Energy</p> <p>2009 US\$</p> <p>Financial Advisor & Arranger</p> 	 <p>Eólica Foz do Rio Choró (25,2 MW)</p> <p>2009 R\$ 737,898,028 Sale Advisory of 51% of 210 MW Wind Farm Portfolio to a Utility Company</p> <p>Financial Advisor & Arranger</p> 	 <p>Eólica Lagoa do Mato (4,2MW) Eólica Canoa Quebrada (10,5MW)</p> <p>2009 R\$ 43,638,190 20 Year Senior Loan with Banco do Nordeste</p> <p>Financial Advisor</p> 	 <p>Tullow Oil Plc</p> <p>2009 US\$ 25,000,000 Senior Unsecured Revolving Credit Facility</p> <p>Mandated Lead Arranger</p> 	 <p>Marine Subsea</p> <p>2009 US\$ 220,000,000 Export Credit Facility</p> <p>Financial Advisor & Arranger</p> 

Summary Oil & Gas Credentials (2/2)

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 <p>Total Mozambique SARL</p> <p>2009 MT 230,000,000 Medium Term Facility</p> <p>Sole Arranger</p> 	 <p>Total Uganda Limited</p> <p>2009 UGX 31,500,000,000 Medium Term Facility</p> <p>Sole Arranger</p> 	 <p>Ophir Energy Company Limited</p> <p>2008 US\$ 5,000,000 Equity Investment</p> 	 <p>Ansan Wikfs (Hadramaut) Limited Yemen</p> <p>2008 US\$ 30,000,000 Oil & Gas Term Facility</p> <p>Sole Arranger & Bookrunner</p> 	 <p>San Antonio Oil & Gas Ltd</p> <p>2008 US\$ 275,000,000 Senior Secured Term Loan US\$ 55,000,000 Senior Secured Term Loan</p> <p>Arranger & Underwriter</p> 	 <p>BrazAlta Resources Corp.</p> <p>2008 US\$ 14,000,000 Revolving Credit Facility US\$ 12,000,000 Term Loan Facility</p> <p>Mandated Lead Arranger, Underwriter & Administrative Agent</p> 
 <p>Saxon Energy Services Inc.</p> <p>2008 US\$ 285,000,000 Term Loan Facility</p> <p>Mandated Lead Arranger, Underwriter & Documentation Agent</p> 	 <p>Addax Petroleum Corporation Nigeria & Gabon</p> <p>2008 US\$ 500,000,000 Senior Unsecured Revolving Credit Facility</p> <p>Mandated Lead Arranger</p> 	 <p>JSC Kuat Holdings Kazakhstan</p> <p>2008 US\$ 15,000,000 Corporate Loan</p> <p>Sole Lender</p> 	 <p>Quintana Wellpro S.A.</p> <p>2008 US\$ 30,000,000 Term Loan Facility</p> <p>Mandated Lead Arranger, Underwriter & Administrative Agent</p> 	 <p>TAV Tunisia</p> <p>2008 EUR 562,500,000 Project Finance Facility for Tunisian Projects</p> <p>Mandated Lead Arranger, & Book Runner</p> 	 <p>Transglobe Energy Corporation</p> <p>2008 US\$ 100,000,000 Revolving Credit Facility US\$ 48,000,000 Term Loan Facility</p> <p>Mandated Lead Arranger, Underwriter & Admin Agent</p> 
 <p>SIF Energias do Brasil (210 MW)</p> <p>2008 Sale Advisory of 51% of 210 MW Wind Farm Portfolio to a Utility Company</p> <p>Financial Advisor</p> 	 <p>Camco International Limited</p> <p>2008 5.8 million CER's and €15 million Advance Payment Structured Carbon Emission Credit Transaction</p> <p>Sole Arranger & Distributor</p> 	 <p>2008 US\$ 950,000,000 Syndicated Term Loan Facility</p> <p>Mandated Lead Arranger</p> 	 <p>Zorlu Enerji</p> <p>2008 US\$ 500,000,000 Syndicated Term Loan Facility</p> <p>Mandated Lead Arranger & Book Runner</p> 	 <p>2007 TME Acquisition</p> <p>Tranche 1: US\$350,000,000 Tranche 2: US\$200,000,000 Acquisition Finance Facility & Refinance Facility</p> <p>Mandated Lead Arranger</p> 	 <p>Dogus Holding AS</p> <p>2007 US\$ 300,000,000 Syndicated Term Loan Facility</p> <p>Mandated Lead Arranger</p> 

Section 2:

Global Oil & Gas Snapshot

Oil and Gas Snapshot

Industry Overview

Oil and Gas Market Key Statistics

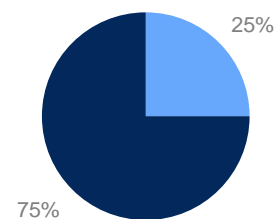
Statistic	Comments
Market Value	35.9% increase in 2008 to \$ 3,191.4 billion in revenues
Market Value Forecast	Forecast value in 2013 of \$3,380.8 billion
Market Volume	1.1% growth in 2008 to 46.2 billion BOE
Market Volume Forecast	Forecast value in 2013 of 48.1 billion BOE
Oil / Gas Segmentation	Crude Oil sales generating 75% of global revenue
Market Trend / Growth	Low growth expected until 2013, due to repercussions of the recession

Exploration and Production

- Global oil and gas exploration and production sector generated total revenues of \$4,368.2 billion in 2008
- CAGR of 32.6% for the period spanning 2004-2008.
- Volume expected to rise to 60.9 billion barrels by the end of 2013, representing a CAGR of 0.9% for the 2008 - 2013 period.
- Crude oil exploration and production as the most lucrative segment in 2008, with revenues estimated at \$2,959.3 billion (or 67.7% of the sector value).
- Natural gas exploration and production accounted for 32.3% of the sector's aggregate revenues (or \$1,409 billion in 2008)

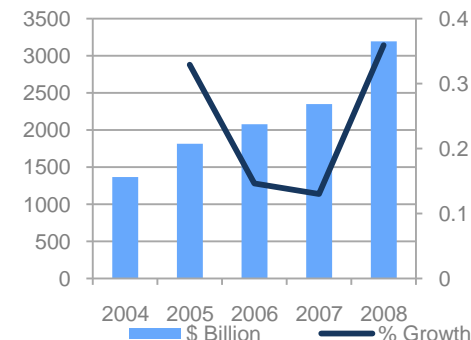
Industry Overview

Global Oil and Gas Market Segmentation by Value, 2008



■ Natural Gas ■ Crude Oil

Global Oil and Gas Market Value 2004 - 2008



Source: BMI

Storage, Transportation, Refining and Marketing

- Total revenues estimated at approximately \$146.5 billion in 2008, representing a CAGR of 12% for the period 2004-2008.
- Volume expected to rise to 31.8 billion BOE by the end of 2013, representing a CAGR of 1.4% for the 2008-2013 period.
- The liquid tankers segment as the sector's most lucrative in 2008, generating total revenues of \$52.8 billion, or 36.7% of sector value
- Gas pipelines segment contributed revenues of \$30.5 billion in 2008.
- The refining and marketing sector generated total revenues of \$5,076.6 billion in 2008, representing a CAGR of 22.5% for the period spanning 2004-2008.
- The sector volume is expected to rise to 49.1 billion BOE by the end of 2013.
- The liquid petroleum products segment was the sector's most lucrative in 2008, generating total revenues of \$3,638.4 billion.

Section 3

SA Funding Opportunities?

Section 3.1

PetroSA - Project Mthombo

Given the scale of the estimated \$9.00-billion refinery project, it is highly likely that PetroSA will look to fund the bulk of the Project's funding requirements through project finance...

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1. Our understanding

- Due to the age of existing Refineries in SA and increasing demand for refined products (principally middle distillates), PetroSA (on behalf of the Government of South Africa) wishes to develop a new greenfield refinery, to be located at Coega, Eastern Cape, South Africa ("The Project")
- A Feasibility Study on the Refinery has been completed (but decisions not yet announced). The expected Refinery capacity is 400,000 bbl. On this basis:
 - Roughly 67% of output would be sold to obligors in South Africa, for say a decade after Project completion
 - The 33% balance would be sold to obligors in the rest of West, East and Southern Africa, until the demand in South Africa was sufficient to take the entire output
- The Refinery's projected capital costs are in the order of USD 9 billion (current estimates). Although PetroSA is a National Oil Company, it does not have significant financial resources (by IOC standards) and / or Refinery development / operating expertise and / or control of downstream assets, whilst South Africa itself does not have access to any material upstream reserves or production assets. This has four consequences, which represent challenges to achieve Project success:
 - PetroSA is required to find upstream partners for the Project ("Feedstock Producers"), who can supply the material amounts of crude a 400,000 bbl refinery needs;
 - PetroSA is required to find downstream partners for the Project ("Oil Marketers"), across South Africa and Africa, who can purchase the material amounts of refined products a 400,000 bbl refinery needs. Nampower have been reported as a potential partner outside of the SA oil companies;
 - PetroSA has experience of operating a Gas to Liquids Refinery in South Africa, but has no corporate oil refinery development or operating expertise. Therefore, PetroSA is required to find equity "Development and Operating Partners", who will co-invest with PetroSA in the Refinery. The identity of these partners may be the same as some of the Feedstock Producers or Oil Marketers, but not necessarily; and
 - Finally, given the USD 9 billion capital cost, multiple contractual counterparties and complex business case, it is highly likely that PetroSA will look to fund the bulk of the Project's funding requirements through project finance, and will potentially hold 37.5% of the Equity. This will need to involve multiple sources of finance, including commercial, concessional and ECA sources
- Notwithstanding the above challenges, it appears clear:
 - There is a shortfall of refined products in Africa and demand is growing
 - South Africa's refineries are ageing, there is an insufficient supply of clean fuel and the Government is very keen not to repeat the ongoing Eskom power crisis (underway for two years) in the Petroleum sector

Project Mthombo – Key Considerations...

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2. Potential Project Issues

Issues	Key considerations
<p>1</p> <p>Fixing the Capacity <i>Mthombo will be a game-changing event</i></p>	<ul style="list-style-type: none"> ■ How best should South Africa upgrade its ageing domestic refineries? ■ Should a regional solution be sought in parallel? ■ What is the trade off between financeability and long term needs? ■ Deciding on a Refinery needs to ensure competition among the Oil Marketers ■ Need to consider huge associated infrastructure requirements in SA ■ Can sufficient cash flows be secured from Africa to finance the project?
<p>2</p> <p>Partnering Decisions <i>A careful balancing act</i></p>	<ul style="list-style-type: none"> ■ What shareholding does PetroSA wish to hold in the Refinery? 37.5%? ■ Feedstock Producers must have adequate crude; sufficient crude and must be acceptable to ECAs, DFIs and commercial banks ■ Oil Marketers have limited capital invested in South Africa and limited incentive to invest equity ■ Can PetroSA circumvent the limitations of South Africa's PFMA? ■ What is the Government's desired position regarding other government support - e.g. China?
<p>3</p> <p>Funding strategy <i>Raising project finance is the core strategy?</i></p>	<ul style="list-style-type: none"> ■ How will PetroSA fund its shareholding? ■ Utilisation of ECA finance (or at least the option to use it) ■ Maximise commercial bank finance ■ Market soundings with DFIs ■ A domestic IPO (pre or post completion)?

Funding Project Mthombo through project finance will require two underlying issues to be addressed – SA's petrol and diesel price mechanism (which does not include an asset component) and clean fuels legislation....

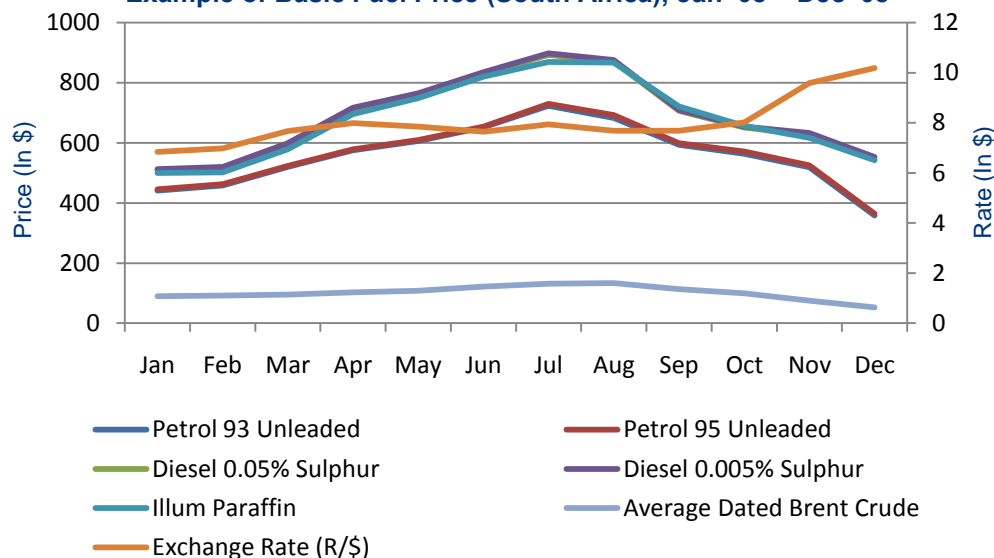
Underlying Issues – Petrol Price Mechanism in SA (1)

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How Fuel/Petrol Price is Calculated in South Africa?

- Price regulated by government
- Petrol price changes every month on the first Wednesday of the month
- The calculation of the new price done by Central Energy Fund (CEF) on behalf of the Department of Minerals and Energy (DME)
- **The petrol price in South Africa is directly linked to the price of petrol quoted in US dollars at refined petroleum export orientated refining centres in the Mediterranean area, the Arab Gulf and Singapore**
- Domestic prices of fuels influenced by
 - international crude oil prices
 - international supply and demand balances for petroleum products
 - the Rand/US Dollar exchange rate
- The international element (or Basic Fuel price (BFP)) based on international market prices of petroleum products, **reflecting the cost of what the actual import of product to South Africa would cost**
- Free-on Board (FOB) values
- Freight
 - Demurrage
 - Insurance: 0.15% of the FOB-value and freight to cover insurance
 - Ocean loss: 0.3% calculated on the sum of the FOB
 - Cargo dues (Wharfage)
 - Coastal Storage: adjusted on an annual basis by the increase in the Producer Price Index (PPI)
 - Stock Financing: based on (i) the landed cost values of refined petroleum products, (ii) 25 days of stockholding and (iii) the ruling prime interest rate less 2 percent.

Example of Basic Fuel Price (South Africa), Jan '08 – Dec '08



Source: Department of Energy

Underlying Issues – Petrol Price Mechanism in SA (2)

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How Fuel/Petrol Price is Calculated in South Africa?

- Domestic elements include:
 - Inland transport costs
 - Delivery costs
 - Wholesale margin: fixed maximum monetary margin calculated on an industry average basis - a benchmark return of 15 percent on depreciated book values of assets, with allowance for additional depreciation, but before tax and payment of interest
 - Retail profit-margin: fixed by the DME and is determined on the basis of the actual costs incurred by the service station operator in selling petrol
 - Equalisation Fund levy: a fixed monetary levy, determined by the Minister of Minerals and Energy in concurrence with the Minister of Finance
 - Fuel tax: determined by the Minister of Finance.
 - Individual Levies (Customs and Excise levy, Road Accidents Fund levy, Slate levy, Demand Side Management Levy on 95 unleaded petrol, IP tracer dye levy, Petroleum pipelines levy)
- Other Key Issues
 - Unattractive retail margin in SA
 - Aging refinery capacity, with a need for new / upgraded Refinery Capacity (Game Changing Event)
 - Increasing demand for fuels, especially diesel
 - Clean fuel legislation (Game Changing Event) require new investment but how will new investment be recovered?
- One Solution: Regulatory Asset Base regulation?
 - RAB is a proxy value of a regulated operating asset, (**e.g. Project Mthombo**) upon which the owners of the asset earn a return
 - It is one of the major building blocks of the price cap determination. It requires that the return on the RAB be determined. The higher the RAB, the greater the level of revenue that the owners of an asset are allowed to earn
 - **Currently, SA petrol/diesel prices do not include any component relating to SA refineries. This component could be considered in order to finance Project Mthombo**

Underlying Issues - Clean Fuels Legislation (1/2)

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Road Map

- Industry and policymakers around the world have placed emphasis on reducing sulfur limits in fuels for decades
- In 2003, the European Parliament passed a regulation requiring “sulfur-free” gasoline and diesel fuels from 2009
 - Both sulfur-free gasoline (petrol) and diesel were expected to be available for highway vehicles from 2005, and become mandatory in 2009
 - The 2009 sulfur-free diesel deadline also applied to mobile non-road engines
- As of today, the majority of countries around the world are moving toward low sulfur fuels
 - Full penetration of 10 ppm sulfur in all transportation fuel by 1st January 2009 is being effective in Europe
 - The International Fuel Quality Center survey recently showed that there is a tremendous movement being made globally toward zero sulfur fuels, as the top 44 countries (including Uganda (43rd), Morocco (44th)) all have sulfur limits of 50 ppm or less (On-road fuels only)

Considerations

- The additional demands for low sulfur fuels is likely to increase
- Cost: Low-sulfur diesel fuel is expensive to make. In most refineries, diesel fuel is made from distillate fractions of crude oil. This requires special processing
- Refinery: Most refineries in developing countries do not have much or any hydrocracking capability which limits their ability to produce low-sulfur diesel fuel

What options for developing countries?

- Increase the use of natural gas – “Synthetic” diesel fuel (made from natural gas) can be a viable solution
- Required changes to diesel fuel quality and composition
- Refiners could move towards biofuel blending in gasoline
- Import of low-sulfur fuel could be more cost effective for many sub-Saharan African countries as it would help them avoid a costly modification of refineries to add hydrocracking
 - However, economic pressures may keep prices for low-sulfur diesel fuel high in potential exporting countries (U.S. and the E.U.)

Underlying Issues - Clean Fuels Legislation (2/2)

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What about South Africa?

- South Africa works to Euro II engine standards
- R10 billion in refinery modifications invested by South Africa's local fuel industry
- A much higher level of investment is likely to be required by the refineries if they are to meet Euro IV standards
- 50-parts-per-million (ppm) sulphur diesel available six years from now (according to the fuel industry)
- 10-parts-per-million (ppm) sulphur diesel available in 2020 (Idem)
- Growing concerns about the lack of pressure on fuel companies to produce cleaner diesel and petrol
- Cleaner grades of fuel are not available in South Africa, making it difficult for automakers
- New passenger vehicles to be taxed based on their certified CO2 emissions at R75 per g/km for each g/km above 120 g/km, from September 1 (Maiden Budget Speech)
- **Project Mthombo could increase the supply of clean fuels within SA. However, unless Clean Fuels Legislation is introduced – with an associated cost recovery mechanism - there is little financial incentive upon the industry to upgrade the existing refineries, which also impacts upon the Project Mthombo business case**

Section 3.2

Offshore Gas Exploration – CCGT IPP

Offshore Gas Exploration....

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Natural gas may offer SA another power generation alternative

- Off the West Coast of Southern Africa, there are several gas developments including:
 - Forest Petroleum / Anschutz / PetroSA's Ibhubesi field
 - Gazprom / Namcor / Tullow's Kudu gas field (Namibia)
- Around the world, there has been a “dash for gas” with natural gas now fuelling significant numbers of power plants
- Natural gas fired power plants (e.g. Combined Cycle Gas Turbines (“CCGT”)) offers a number of advantages compared to other generation sources:
 - High efficiency (e.g. 55-58%)
 - Low emissions of SOx / NOx compared to coal
 - Diversification of SA energy choices compared to coal
- In order to benefit from natural gas, the following issues must be addressed:
 - Additional exploration work to ensure there are bankable gas reserves
 - Involvement of investors experienced in gas production, and
 - Either:
 - an ability for Eskom/ISMO to buy the natural gas within their existing regulatory frameworks (e.g. PFMA, NERSA, IRP 2, NewGen Regulations) ;or
 - an ability for an IPP to buy the gas and sell to private offtakers, which entails the wheeling of power

Section 3.3

Sasol – Project Mafutha

Sasol – Project Mafutha

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Project Background

- The fourth South African synthetic fuel plant - coal-to-liquids (CTL) from Sasol, the biggest industrial investor in SA
- Situated in the northwestern part of Limpopo in the Waterberg coal region
- An estimated R1.0 billion spent on the up-front work (including prefeasibility study into the viability of the Mafutha project and associated infrastructure) – Awarded to Foster Wheeler

Main Drivers

- Enormous demand for fuel, particularly diesel (which) has gone up by 12% year-on-year
- The Mafutha project would maximise diesel output to match the growing demand for diesel for transport use
- Volatile oil prices
- Increasing energy insecurity
- The “peak oil” era (The inexorable decline of oil in the foreseeable future)
- Need to nurture and develop the skills pool in this industry, which the Mafutha project is likely to contribute
- SA is running out of refining capacity

Recent Developments:

- SA government has factored the Mafutha project into its industrial policy action plan, together with PetroSA’s 400000-barrel -a-day crude oil refinery
- SA government to conduct a cost-benefit analysis of the project prior to deciding whether or not it should be a partner

Partners and Potential Partners

- Industrial Development Corporation (IDC): 49.0 percent stake (MoU in place)
- Sasol a 51.0 percent stake
- Exxaro Resources ?
- Government ?

Key Project Metrics

- Potential Project cost (In \$ Billion): 10+ billion
- Capacity (In Bpd): 80,000
- Estimated Coal Requirements (In Million Tonne): 25.0
- CoD: 2016

Key Considerations

- Coal supply, suggesting that a coal mine will need to be built. The mine is expected to require an opencast truck-and-shovel extraction method
- The off-take agreements
- Energy security
- Regulatory approvals
- Financeability given scale of capital requirement

Section 3.4

Transnet – NMPP

Transnet - New Multi Product Pipeline (NMPP)

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Regulatory

■ NERSA Decisions

- Following NERSA's 2007 licencing decision in its favour, Transnet Pipelines submitted a single tariff application to NERSA through which the tariff for the existing pipeline business (DJP) would increase significantly to part-fund the NMPP (as well as service DJP costs).
- This application was strongly opposed by the coastal refiners who contended that Transnet's application would lead to cross-subsidies (i.e. existing customers of DJP would pay for the NMPP upgrade) and had competition implications (as a result of inland customers not having to pay significant charges for the NMPP)
- In May 2009, NERSA rejected Transnet's application and reduced the DJP tariff by 10% (compared to a requested 63% increase)
- Transnet then applied for a 51% increase in the DJP tariffs, for which an 11% increase was granted in May 2010
- As with the Eskom tariff applications, the regulatory pattern appears to be for the SOE to ask for a larger tariff increase than it is eventually granted

Financing

■ Financing

- Transnet has noted there has been no real increase in pipeline tariffs since 2008/2009, notwithstanding ongoing material capex on the NMPP
- It argues this creates significant uncertainty over its future cash flows
- Transnet has a 5 year capex plan of R 93.4 billion of which the NMPP current projected cost is R 15.5billion
- To date, R 6 billion has been spent, leaving R 9.5 billion to be spent, which we assume has to be funded from Transnet's corporate cash and borrowings
- Transnet's balance sheet strength has helped it cater for the lower tariff increases than requested for NMPP, not all companies could withstand these revenue shortfalls
- Transnet revenue will increase once NMPP commissioned, hence key concern is to bridge the period until pipeline fully operational in 2012
- Transnet / NERSA discussions on NMPP since its inception raises questions about SA's economic regulation of infrastructure
- It is noted the discussion has been between Regulator and an SOE, but what if it had been with a foreign investor?

Section 4

Discussion Points

Discussion Points

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Underpinning the individual transactions, we see the following discussion points

- What is the economic value attached to energy security?
- How much is Government prepared to make SA consumers pay for it?
- What is the appropriate balance between importing refined products and producing from domestic refineries?
- Should a SA technological success (CTL) continue to benefit from Government assistance?
- Can natural gas boost fuel diversity and lower SA's carbon footprint?
- Is SA's model of economic regulation right for every occasion?

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