Historical Excursion On The Liquid Fuels Sector

• Liquid Fuels sector is more than 100 years in SA
• Almost all petroleum products sold in South Africa were imported as refined product by the respective wholesale companies who distributed this to their branded retailers and various commercial customers.
• In the first half of the 1950s, the government-initiated project to produce oil from South Africa’s abundant low-grade coal reserves, which saw the formation of the South African Coal, Oil and Gas Corporation Limited, later called Sasol Limited
• In 1955 the first oil-from-coal-synthetic fuel plant – Sasol One – was constructed
Historical Excursion On The Liquid Fuels Sector

- Period of the Sasol Supply Agreements (SSA) or the Main Supply Agreement (MSA) between Sasol and the major distributors.
- The international oil crisis of 1973 accelerated government’s plans to expand the capacity of Sasol’s oil-from-coal facilities.
- The UN’s imposition in 1977 of a mandatory crude oil embargo underlined these concerns, as did the Iranian revolution of 1979.
- Sasol Two and Sasol Three were commissioned at Secunda, also in the inland region, in 1980 and 1982 respectively.
Historical Excursion On The Liquid Fuels Sector

• In 1987 when natural gas condensate was discovered off shore, the Government built a gas-to-liquids plant Mossel Bay (now owned and operated by PetroSA).
• The Mossgas plant commenced production in late 1992.
• Government, in addition to its direct intervention through Sasol to secure indigenous sources of petroleum product, also encouraged private sector initiatives aimed at addressing these concerns. These included incentives to invest in local refining capacity.
Historical Excursion On The Liquid Fuels Sector

• The first crude oil refinery was commissioned by Mobil in 1954. This is the Enref refinery as it is known today.

• In 1962 a Shell-BP joint venture commissioned a second crude refinery in Durban. This is known as the Sapref refinery.

• At about the same time Caltex also decided to establish a refinery in Durban but it was ultimately incentivised to locate its refinery in Cape Town.
Historical Excursion On The Liquid Fuels Sector

- This is the Calref refinery which was commissioned in 1966.
- In 1969 government initiated the formation of a company whose shareholders were Sasol, Total and the National Iranian Oil Company (NIOC) with the intention of establishing an inland crude oil refinery. Natref was commissioned in 1971 and is located in Sasolburg.
Significant development post-1994 in the Liquid Fuels Sector

- Liquid Fuels Charter, 2000
- End of the Sasol ‘Blue Pump’ Agreement 2003
- Phasing out of lead in Petrol (Clean Fuels 1), 2006
- The Petroleum Licensing Regime, 2006
Significance of the Liquid Fuels Sector in the Economy

- The strategic significance that fuel products assume in all countries
- There is South Africa’s historic reliance on imported crude oil
- Establishment of refinery capacity at the coast, some considerable distance from the country’s inland industrial hub, the major market for fuel products.
- Sector contributes 6.48% to the national GDP in 2012
- Slow transformation in the sector
The State of the Liquid Fuels Sector in South Africa

• The downstream petroleum industry is integrated throughout the value chain.
• The dominant petroleum companies in South Africa are BP, Chevron, Engen, PetroSA, Sasol, Shell and Total SA, and they are major distributors of Petroleum Products in the country.
• They operate storage terminals and distribution facilities at the major ports and have distribution facilities throughout South Africa.
## Liquid Fuels Sector - Consumption of Petroleum Products (million litres)

<table>
<thead>
<tr>
<th>Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrol</td>
<td>11455</td>
<td>11963</td>
<td>11714</td>
</tr>
<tr>
<td>Diesel</td>
<td>10170</td>
<td>11225</td>
<td>11262</td>
</tr>
<tr>
<td>Jet Fuel</td>
<td>2308</td>
<td>2434</td>
<td>2367</td>
</tr>
<tr>
<td>Paraffin</td>
<td>545</td>
<td>581</td>
<td>537</td>
</tr>
<tr>
<td>Fuel Oil</td>
<td>468</td>
<td>477</td>
<td>568</td>
</tr>
<tr>
<td>LPG</td>
<td>612</td>
<td>717</td>
<td>656</td>
</tr>
</tbody>
</table>
Value Chain in the Liquid Fuels Sector in South Africa

• Three steps to get petroleum products to consumers:
  1) Firstly the product has to be produced,
  2) Then it must be transported to depots and storage facilities around the country and
  3) Finally it must be distributed from depots to the service stations or customers.

• These steps are commonly referred to as refining; distribution and retailing.
Refined petroleum products such as petrol, diesel, fuel oil, paraffin, jet fuel and LPG are produced by the following methods:

- Crude oil refining;
- Coal to liquid fuels and gas to liquid fuels; and
- Natural gas to liquid fuels
# Liquid Fuels Sector - Refining

<table>
<thead>
<tr>
<th>South African Refinery Ownership and Crude Throughput</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crude Oil Refined at the following refineries:</strong></td>
</tr>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Chevref</td>
</tr>
<tr>
<td>Enref</td>
</tr>
<tr>
<td>Natref</td>
</tr>
<tr>
<td>Sapref</td>
</tr>
</tbody>
</table>

**Coal and Gas Processed and Refined at:**

- **Sasol Secunda**
  - 150,000 bpsd
  - Sasol

*(Crude equivalent @ average yield)*

**Gas Processed and Refined at**

- **PetroSA**
  - 45,000 bpsd
  - PetroSA

*(Crude equivalent @ average yield)*
Liquid Fuels Sector - Distribution

- Petroleum products are moved from refineries by pipelines, rail, sea and road to approximately 200 depots, 4 600 service stations and 100 000 direct consumers who are mostly farmers.
Regulatory Framework

- Import/Export Control
- Import Parity Pricing
- BFP
- Margin Setting
- Licensing & Monitoring
- LFI Charter
- Transport Differentials
- Regulatory accounting
- Supply agreements
Compliance Framework

- SPECIFICATIONS & STANDARDS
- LICENSING REGULATIONS
- PETROLEUM PRODUCTS ACT
Controller’s Framework

- Manufacturers
- Wholesalers
- Property owners/lessees
- Retailers

- Remove cross-subsidies between regulated and unregulated activities
- Compliance monitoring License conditions & Clean fuels specifications
- Balance power between retailers and wholesalers

Licensing

Inspections

Regulatory accounting
Not all petroleum products are regulated

- **Petrol**: Regulated
- **Diesel**: Unregulated
- **Non-controlled products**: Unregulated
- **Non-fuel products**: Unregulated

**Retail**

**Commercial**

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Department: Energy

Republic of South Africa
Levers & Effects

Balancing Different Interests

Import control

Pricing

Licensing

Impact

Consumer prices

Investments

Transformation

Security of supply
Current problems area

• Refining
  - Capacity running out

• Wholesale
  - Diesel “cross subsidies”
  - Retail customers subsidizing commercial customers

• Retail
  - Uneven treatment of DODO vs. CODO sites
  - Proliferation of service stations

• Distribution
  - Limited investment in logistical infrastructure
Conclusion

• The major companies in the South African Liquid Fuels industry remains BP Southern Africa, Chevron South Africa, Engen Petroleum, PetroSA, Sasol Oil, Shell South Africa and Total South Africa.

• They operate storage terminals and distribution facilities throughout South Africa.

• Until recently, there were very few non-refining wholesalers or distributors supplying petrol and diesel in South Africa.

• Today, there are many that are registered with the Department of Energy.
Thank You