FUEL PRICING

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Introductions

- **<u>Three</u>** basic forms of fuel pricing globally
  - ***Ad hoc pricing*** - Prices set irregularly, No transparency – common in countries that have own oil (highly subsidised)

    {It is an illusion – keeping the prices constant even when the markets are bullish, hoping that the prices will go down e.g. Bolivia.}
  - ***Formula based / automatic pricing adjustments*** – Prices are published (but not the formulas in some countries) e.g. RSA publish both prices and the formula
  - ***Liberalised pricing system*** – the market set the prices (depoliticised) but there is a formula e.g. Australia.

Policy Framework

- **Regulation of liquid fuels prices**
  - Petrol, diesel and illuminating paraffin (IP)
  - LPG for households since 14 July 2010
- **Import parity principle (IPP) applies**

Dfn: The price an importer has to pay to purchase a product in the world market and have it delivered for domestic sale.

  - Deemed pricing
  - Zonal pricing – magisterial district zones (MDZ)
  - Transport modes – based on least cost mode
  - Cost recovery

Important months

April – transport tariffs, fuel levy and RAF adjustments

September – Forecourts attendants wage adjustments

December – wholesale and retail margins adjustments including secondary storage and transport

Quarterly – Octane differential adjustments

Regulatory Mandate

- Energy White Paper on Energy Policy of November 1998
- Petroleum Products Act, 1977 (Act No.120 of 1977);
- Central Energy Fund Act, 1977 (Act No. 38 of 1977);
- Gas Act, 2001 (Act No. 48 of 2001);
- Petroleum Pipelines Act, 2003 (Act No.60 of 2003);
- Gas Regulator Levies Act, 2002 (Act No. 75 of 2002);
- Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004);
- National Energy Regulator Act, 2004 (Act No. 40 of 2004); and
- National Energy Act, 2008 (Act No. 34 of 2008)

Basic Fuel Price (BFP)

The Basic Fuel Price (BFP) is based on the import parity pricing principle i.e. what it would cost a South African petrol importer to purchase the petrol from an international refinery, transport the product from that refinery, insure the product against losses at sea and land the product on the South African shores.

NB: The Central Energy Fund (CEF) (Pty) Ltd was appointed by Cabinet in 1994 as an impartial body to determine BFP's (prevent manipulation by any interested party)

Daily and average monthly BFP's for price regulated fuels are calculated by (CEF) in terms of the Working Rules to administer the BFP

Monthly BFP calculations, price changes to be effected and monthly Fuel Price Media Statement audited by <u>independent auditors</u> appointed by the DOE

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BFP Working Rules

- Make provision for all grades of petrol, all grades of diesel and illuminating paraffin (IP)
- Average BFP for the previous month is adjusted on the first Wednesday of a month

Elements of the BFP

- Free-on-Board (FOB)-value
- Freight and Average Freight Rate Asses
- Insurance
- Ocean loss
- Demurrage
- Cargo Dues
- Coastal Storage
- Stock Financing costs

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Free on Board (FOB)

Platts: A price reporting agency. Mean quoted FOB-values used

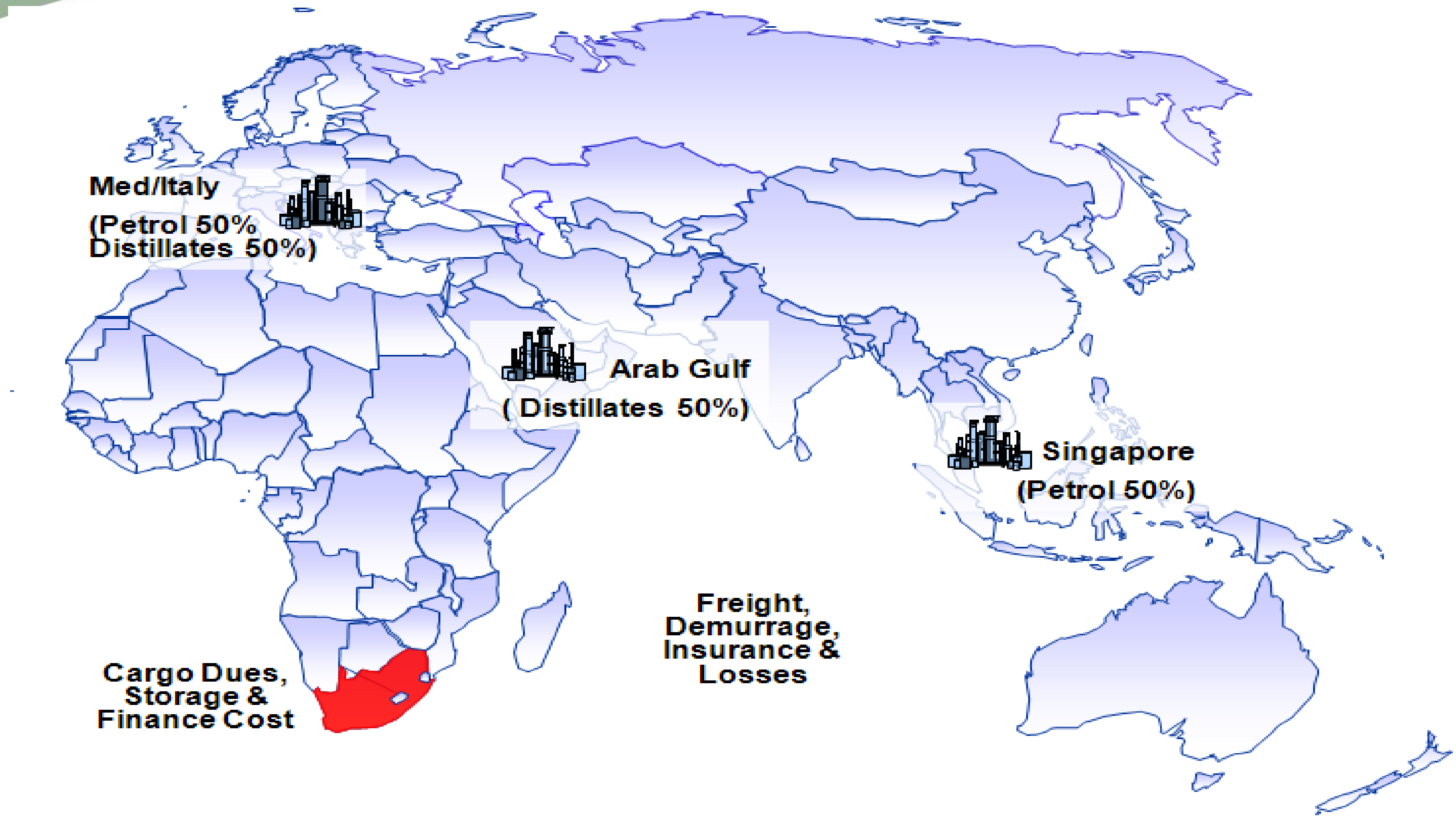
Petrol: 50% MED (USD/ton)+50% Singapore (USD/bbl)

Diesel: 50% MED (USD/ton)+50% AG (USD/bbl)

IP: 50% MED (USD/ton)+50% Singapore (USD/bbl)

International conversion rates are used to convert Tons/barrels to litres

NB: Argus and Bloomberg are other agencies.



Med/Italy
(Petrol 50%
Distillates 50%)
Arab Gulf
(Distillates 50%)
Singapore
(Petrol 50%)
Freight,
Demurrage,
Insurance &
Losses
Cargo Dues,
Storage &
Finance Cost

Factors that influence the BFP

- International crude oil prices
- International product supply/demand balances
- Product inventory levels
- Geo-politics
- Rand/US Dollar exchange rate
- International refining margins
- Weather patterns in the Northern Hemisphere

NB: go to CEF website: cefgroup.co.za

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Fuel Levies (1)

- **Petroleum products levy**: to reimburse the pipeline users for the applicable NERSA tariff on transporting fuel through the pipeline - levy set by the Ministers of Energy and of Finance in line with the expenditure budget of NERSA
- **IP Tracer dye levy**: to reimburse the oil industry for buying IP tracer dye and to inject it into IP to curtail the mixing of IP and diesel
- **Slate levy**: to finance the cumulative under recovery of the industry. Only applicable when the cumulative Slate balance exceeds R250 million under recovery

Fuel Levies (2)

- **Fuel levy**: Tax levied by Government (Minister of Finance)
- **Custom and Exercise levy**: a duty collected in terms of the Customs Union Agreement
- **Road Accident Fund (RAF) levy**: To compensate for people involved in vehicle accidents.
- **Demand Side Management levy (DSML)**: Introduced in 2006 to curtail the use of ULP 95 in the inland market.

Illuminating Paraffin (IP)

Price component	**Cents per litre**
Basic Fuels Price	840.128
Wholesale margin	61.200
Service differential	28.800
Router differential	7.400
Transport costs	52.700
Sub-total	**990.228**
Retail margin: (33,3% of 687.013)	301.772
SMNRP (Linked to BFP)	**1292.0 (rounded to full cents)**

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Maximum Retail Price of LPGas

Maximum refinery gate price	1110.821	1110.820
Primary transport costs	37.120	175.960
Operating expenses	343.000	343.000
Working capital	26.000	26.000
Depreciation	126.000	126.000
Gross margin: Cylinder-filling plant	161.000	161.000
Sub-total (1)	**1803. 940**	**1942.780**
Retail Margin: (15% of Subtotal (1))	270.591	291.417
Sub-total (2)	**2074.531**	**2234.197**
Value Added Tax (14% Sub-total (2))	290.434	312.788
Maximum Retail Price (Rounded to full cents)	**2365.000**	**2547.000**

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Regulated Prices

- Petrol is regulated at retail level
- Diesel is not regulated, publish the wholesale as reference price
- Illuminating Paraffin is regulated at retail level (SMNRP)
- LPGas is regulated at Retail level and the MRGP is determined by government

Regulatory Accounting System (RAS)

BACKGROUND

Prior to RAS, industry margins were determined using the Marketing of Petroleum Asset Retail (MPAR) methodology.

- ✓ Assets of retail service station
- ✓ Wholesale margin on petrol, diesel and paraffin
- ✓ Assets of secondary storage and secondary distribution (service differential)

Definition: The MPAR involves petroleum related activities outside the refinery gate and other related activities, namely, storage, transportation, distribution, marketing and administration. The profit margin, in terms of the MPAR formula, is determined to yield a benchmark industry average of 15% rate of return **(10%-20%** range with a one year lag) on the **depreciated book value of assets** for the year ended December. (Lambrecht and Doppegieter, 1993). If the returns go above 20%, then a margin decrease is indicated, and if it falls below the 10% floor, then a margin increase will be recommended.

Bates White Recommendations

- ✓ Margins on activities be based on **Regulatory Accounts**
- ✓ Activities post-refinery gate should be **ring-fenced**
- ✓ Assets, costs and ROA be ring-fenced to that activity – ABC methodology
- ✓ CAPM and WACC be applied to determine the ROA of each activity
- ✓ Identified activities were:
  - ✓ Wholesale activities
  - ✓ Secondary storage
  - ✓ Secondary distribution
  - ✓ Service station retail activities (BSS)

RAS Margins

MARGINS	PETROL
Retail Margin	Dealer Opex = **96.8 c/l** Capex = **54.8 c/l** Entrepreneurial Compensation = **24.8 c/l** **Total = 176.4**
Wholesale Margin	35.6 c/l
Secondary Storage	17.9 c/l
Secondary Distribution	17.3 c/l

Three parts to Retail Margin

- CAPEX = 54.8c/l
- OPEX = 96.8c/l
- EC = 24.8c/l

RAS BSS Matrix

- Provides a breakdown in cents per litre of all the costs item that are required to built and operate a **benchmark service station (BSS)**

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Challenges

- ✓ RAS applicable to petrol only
- ✓ RAS based on a RORO site
- ✓ Margins allocations / Ownership of the margins
- ✓ Relationship between oilcos and retailers
- ✓ Lack of information on RAS
- ✓ Some parties not embracing the spirit of RAS

Advantages of RAS

- It is transparent
- Guaranteed return on investment for each activity along the value chain
- Clear guidelines on how to split the retail assets and operational costs (BSS matrix)
- Regulatory Asset Manual which, amongst others, addresses (a) regulatory lag; and (b) adjustments to the retail margin in respect of the timing of electricity increases; wage increases; and of other costs increases

How the Retail margin is calculated

- Historical survey
  - Annual operating costs (OPEX)
  - Average annual petrol sales
- Other costs adjusted by **CPI**
- Asset Base adjusted by **PPI**
- Total volumes (oilcos)
- Electricity (NERSA)
- Salaries for Forecourt workers (MIBCO)

Conclusion

The Department’s mandate is:

- ✓To ensure **security of supply** (including in rural areas)
- ✓To ensure that fuel is **accessible** to all at **affordable prices**
- ✓To ensure that there is **transparency** in determining the margins throughout the value chain
- ✓To **encourage investments** in appropriate logistics infrastructure
- ✓To **encourage** and **support new entrants**
- ✓To promote oil industry operates **efficiently** and **effectively**

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THANK YOU

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