



Department of Mineral Resources and Energy

Fuel Pricing and Regulatory Accounting System (RAS)

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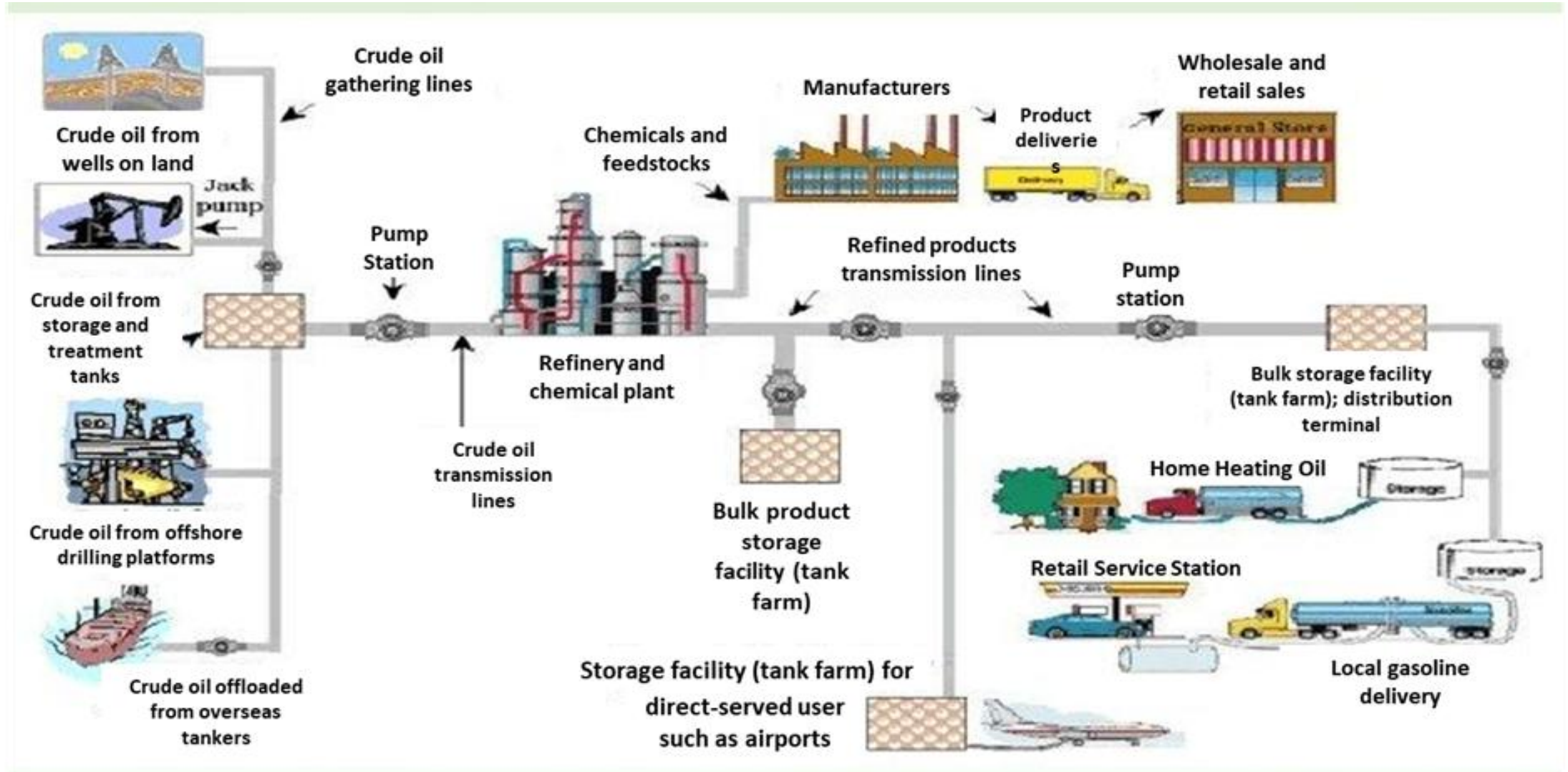


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Petroleum Value Chain



Basic Form of Fuel Pricing

- **Three** 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.

{The Australian Competition and Consumer Commission (ACCC) act as a watchdog to ensure that there is no price collusion}

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 - Pass through cost



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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)



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Basic Fuel Price (BFP) or Import Parity Price (IPP)

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

Basic Fuel Price Working Rules

- Make provision for all grades of petrol, all grades of diesel and illuminating paraffin (IP)
- BFP to be adjusted on the first Wednesday of a month
- Over/under recoveries incurred in a fuel price review period will be cleared in the next one

Important months

April – transport tariffs, fuel levy and RAF adjustments

September – Forecourts attendants wage adjustments - **MIBCO**

December – wholesale and retail margins adjustments including secondary storage and transport – **Regulatory Accounting System (RAS)**.

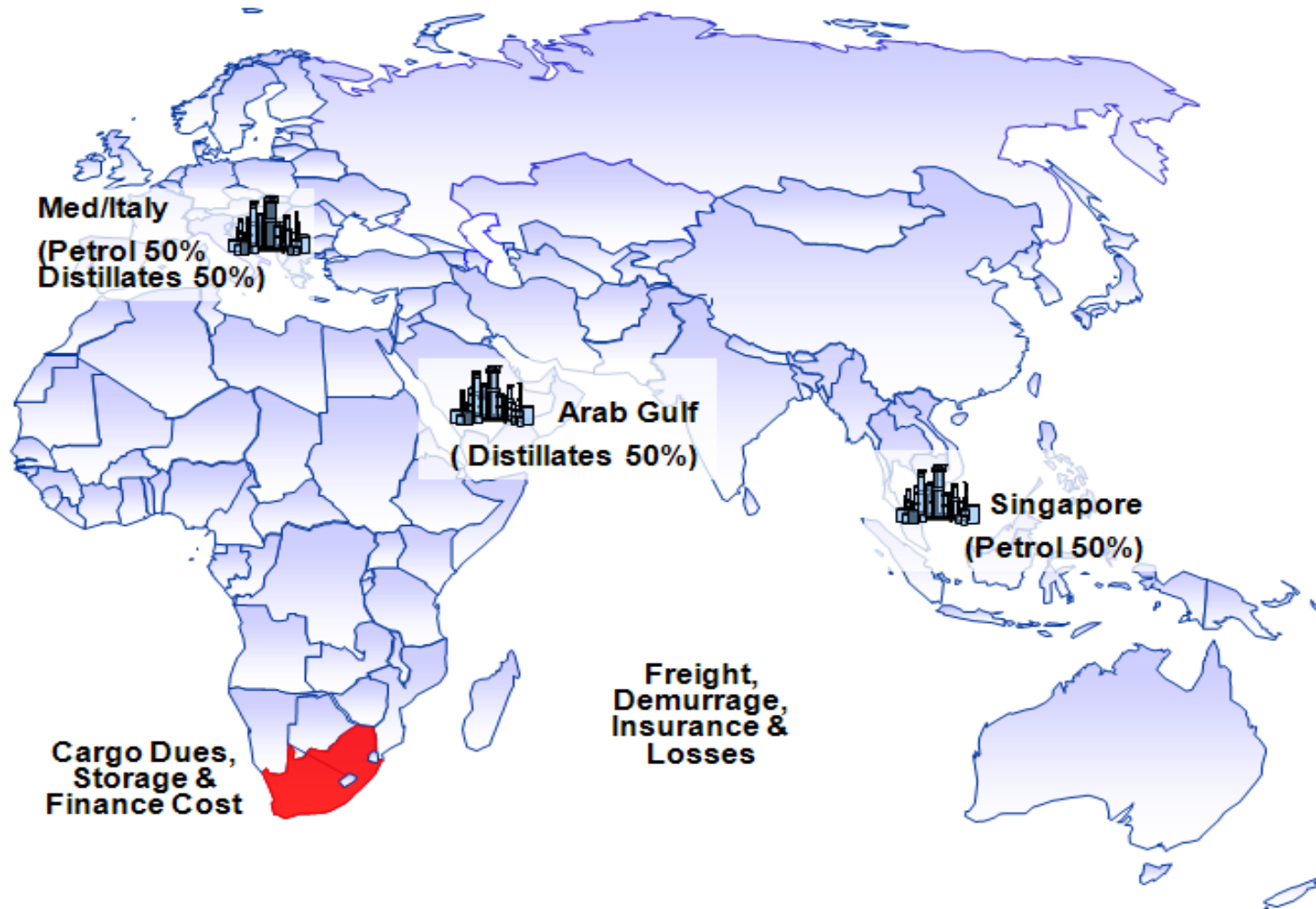
Quarterly – Octane differential adjustments

Elements of the BFP or IPP

- Free-on-Board (FOB)-value – *cost of fuel in the markets*
- Freight and Average Freight Rate Assessment – shipping costs
- Insurance
- Ocean loss – *evaporation during transportation*
- Demurrage – *3 days provision for offloading of fuel*
- Cargo Dues – *a fee to use the harbour facilities (by **TNPA**)*
- Coastal Storage – *25 days provision to ensure security of supply*
- Stock Financing costs – *at prime rate minus 2*



Reference Markets



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Summary of International Factors

- Average exchange rate: USD1= R18.49
- Average FOB: 630.146 c/l
- Freight rate and AFRA: 23.316 c/l
- Demurrage: 0.853 c/l
- Insurance: 1.017 c/l
- Ocean Leakage: 2.036 c/l
- Cargo dues: 3.244 c/l
- Coastal Storage: 5.673 c/l
- Stock financing costs: 3.749 c/l

International conversion factors used



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Factors that influence the BFP

- International crude oil prices
- International product supply/demand balances
- Product inventory level
- Geo-politics e.g. Russia-Ukraine, Closure of Suez canal etc.
- Rand/US Dollar exchange rate
- International refining margins
- Weather patterns in the Northern Hemisphere



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Regulatory Accounting System (RAS)

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



Wholesale Margin

- Wholesale is the function of marketing of petroleum fuels, lubricants and related products and services, under a wholesale licence
- The term generally covers the marketing of refined petroleum products to end users or to re-sellers of petroleum products such as service stations, or other resellers
- A wholesale margin calculated as a return on investment for wholesalers



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Retail Margin

- Retail is the activity carried out through licensed retail service stations
- The principal activity is the sale of petrol and diesel to consumers
- A retail margin is calculated as a return on investment for retailers



Secondary Storage Margin

- Secondary Storage facility consists of the **receipt** of bulk refined products by pipeline, rail or road from a supply point (refinery or terminal), **storage** of the products and breaking bulk into smaller parcels/loads **before delivery** by road to service stations or end-users
- A Secondary Storage margin is calculated as a return on investment for those involved in secondary storage



Secondary Distribution Margin

- Secondary Distribution activity commences at the loading gantry of the depo or terminal where the break-bulk of product occurs
- Distribution refers to the delivery of products to service stations, commercial or bulk customers or another storage facility
- A Secondary Distribution margin is calculated as a return on investment for those involved in secondary distribution



Magisterial District Zones (1)

- The country is divided into 54 fuel pricing zones, and a transport tariff for each of those zones (Ministerial District Zones) is calculated annually in April
- The calculation comprises of a road transport element and a pipeline transport element
- Road transport element: relies on the Vehicle Cost Schedule (VCS) issued by the Road Freight Association (RFA)
- Pipeline transport element: relies on the Pipelines Tariff Determination (Reason for Decision Document) issued by NERSA annually

Magisterial District Zones (2)

- Pipeline Transport element details:
 - ❖ Pipeline Tariffs determined by NERSA
 - ❖ Tariffs provided from the different supply points (Durban MPP, Sasolburg & Secunda)
- Both Road and Pipeline tariffs together are used to determine the transport cost of moving petroleum product from supply point/storage facility to the end user, in each of the 54 zones



Fuel Levies

- **Petroleum products levy:** to reimburse the pipeline users for the applicable NERSA tariff on transporting fuel through the pipeline
- **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 (loss to the Fiscus)
- **Slate levy:** to finance the cumulative under recovery of the industry. Only applicable when the cumulative Slate balance exceeds R500 million (under recovery)
- **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.



Fuel Price Breakdown Structure

	Petrol 95 ULP c/l	Petrol 93 ULP & LRP c/l	Diesel 0.05% S c/l	Diesel 0.005% S c/l	Illumi- nating Paraffin c/l
Wholesale margin	73,700	73,700	94,990	94,990	94,990
Secondary Storage	38,000	38,000	38,000	38,000	38,000
Secondary Distribution	18,800	18,800	18,800	18,800	18,800
Router Differential	0,000	0,000	0,000	0,000	7,400
Retail margin	299,500	299,500	0,000	0,000	0,000
Zone differential in Gauteng	82,800	82,800	82,800	82,800	103,000
IP Tracer levy	0,000	0,000	0,500	0,500	0,000
Fuel levy	396,000	396,000	384,000	384,000	0,000
Customs & excise duty	4,000	4,000	4,000	4,000	0,000
RAF levy	218,000	218,000	218,000	218,000	0,000
Petroleum Products levy	0,330	0,330	0,330	0,330	0,000
Slate levy	0,000	0,000	0,000	0,000	0,000
Pump Rounding	0,000	0,000	0,000	0,000	0,000
Sub-total	1 131,130	1 131,130	841,420	841,420	262,190
<u>Contribution to the Basic Fuel Price</u>	<u>1 102,870</u>	<u>1 077,870</u>	<u>1 174,630</u>	<u>1 179,030</u>	<u>1 155,128</u>
<u>Retail Price</u>	<u>2 234,00</u>	<u>2 209,00</u>			
<u>Wholesale price</u>			<u>2 016,050</u>	<u>2 020,450</u>	<u>1 417,318</u>



Regulatory Accounting System (RAS)

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Summary

- Petrol is regulated at retail level
- Diesel is not regulated, the Department publishes the wholesale reference price
- Illuminating Paraffin is regulated at retail level (SMNRP)
- LPGas is regulated at Retail level and the MRGP is determined by government
- Industry margins are determined by using the Regulatory Accounting System (RAS) methodology every year in December
- The wages of the Forecourt staff is adjusted in September annually.



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