ENERGY REGULATION BOARD

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REPORT ON STATUS OF THE PETROLEUM INDUSTRY

PAPER PRESENTED TO THE PARLIAMENTARY COMMITTEE ON LANDS, ENERGY AND WATER

January 2012

CONTENTS

1.0 BACKGROUND

1.1 The Parliamentary Committee on Lands, Energy and Water requested the Energy Regulation Board (ERB) to provide information on the status of the petroleum industry, specifically focusing on the following:

i. List of all players in the petroleum industry and their market share according to category;
ii. Changes in players in the industry and reasons and impact of such changes in the last 20 years;
iii. The different sources of petroleum products on the market, their pricing considerations and structures;
iv. The impact, if any, of the introduction of the uniform fuel pricing on the petroleum industry;
v. The challenges, if any, being faced by the industry; and
vi. Suggested solutions to the challenges in the industry.

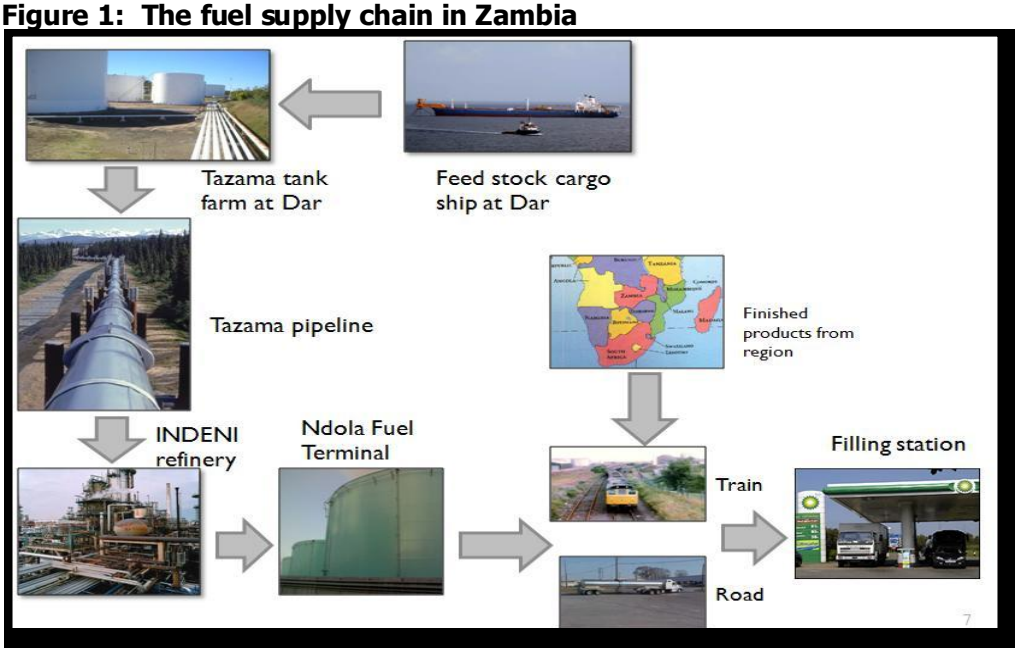
2.0 PLAYERS IN THE PETROLEUM INDUSTRY

2.1 The players/operators in the petroleum industry in Zambia are as shown below:

- Tanzania – Zambia Mafuta (TAZAMA) Pipelines;
- Indeni Petroleum Refinery;
- Ndola Fuel Terminal (NFT);
- Oil Marketing Companies (OMCs);
- Transporters; and
- Dealers (service station operators).

Figure 1 is a diagrammatic representation of the fuel supply chain in Zambia.

Figure 1: The fuel supply chain in Zambia



2.2 The roles and functions of the various operators and facilities in the Zambian fuel supply chain are as briefly described below:

Table 1: Functions of operators in the fuel supply chain

Facility	Characteristics
INDENI PETROLEUM REFINERY LTD	• Built in 1973 (simple distillation plant) to process commingled petroleum feedstock • Owned 100% by Government (TOTAL sold its 50% stake to Government in 2009) • Design capacity of 1.1 million Metric Tonnes (MT) per year but currently operates at around 50% design capacity, and installed capacity has reduced down to 850,000MT • Losses of about 10% (uses diesel for its own power plants to have stable electricity) • Produces Petrol, Diesel, Kerosene, JetA1, LPG, LFO & HFO[1] • Processing fee charged is US$56.10/MT.
TAZAMA PIPELINES LTD	• Built in 1968 as finished products pipeline and converted to feedstock pipeline after refinery was built in 1973. • Owned 67% by the Zambian Government and 33% by the Tanzanian Government. • 1,706km long from Dar-es-Salaam to Ndola with 7 pump stations (of which 5 are in Tanzania) • Installed capacity of 1.1 MT tonnes but down to 850,000MT/year due to bad state of repair • Currently operates at 50% capacity

[1] LPG ï Liquefied Petroleum Gas; LFO ï Light Fuel Oil; and HFO ï Heavy Fuel Oil;

Facility	Characteristics
	• Pumping fee is US$48.52/mt
NDOLA FUEL TERMINAL	• Bulk storage facility with a capacity of 72.2 million litres • Managed by TAZAMA Petroleum Products Ltd[2] • Charges a throughput fee of K25,000/M^3 (K25/L)
OIL MARKETING COMPANIES	• Procure fuel from TAZAMA and import finished petroleum products for onward sale and distribution to the commercial and retail customers • Currently 31 licensed OMCs (from only 10 OMCs in 2003) • About 73% of the market share concentrated in 4 OMCs, i.e. Puma Energy (33.5%), Total (25.7%), Engen (8.4%) and Kobil (7%). • Puma, Total, and Engen have the largest retail network
TRANSPORTERS	• Transporters are contracted by OMCs to transport fuel to various parts of the country. • Road transportation is commonly used as rail is in a state of disrepair. • Over 80 licensed Transporters
SERVICE STATION OPERATORS	• About 220 service stations in the country with limited presence in the rural areas. • 147 (about 67 %) are located in Lusaka and Copperbelt province.

3.0 OIL MARKETING COMPANIES (OMCS)

Table 2 shows a list of 23 OMCs and their market shares as at 31st October 2011 as per the submissions made to the ERB[3].

[2] TAZAMA Petroleum Products Ltd is a 100% owned subsidiary of TAZAMA Pipelines Ltd which was set up to manage the NFT when TAZAMA was appointed agent by the Government in 2008.

[3] There are 31 licensed OMCs. The table only includes companies that have been submitting sales statistics to the ERB. Some of the companies are registered and licensed but are not trading. The companies not included are Eyethu Petroleum Zambia Limited, Dalbit Petroleum, Anegi Oils Limited, Oxyzam Limited, Spring Energy Corporation Limited, Gulf Oil, Ravasia and Colas Zambia Limited.

Table 2: OMC Market shares

	Company	Market Share (%)
1	Afrox Zambia	0.15
2	Agro-Fuel	0.42
3	Continental Oil	0.90
4	Dana Oil	0.02
5	Engen Petroleum	8.49
6	Kobil Zambia	7.09
7	Lake Petroleum	0.45
8	Mag Petroleum	0.70
9	Mount Meru	4.61
10	Ngucha Enterprises	0.04
11	Oasis Oil Zambia	0.65
12	Ody's Oil Zambia	1.23
13	Oryx Oil Zambia	1.39
14	Pegasus Energy	1.64
15	Petroda Zambia	3.21
16	Petrotech Oil	0.80
17	Puma Energy	32.76
18	Samfuel	0.82
19	SGC Investments	1.85
20	Spectra Oil Zambia	4.57
21	Star Oil	0.38
22	Suban Petroleum	2.05
23	Total Zambia	25.80
	Total	**100.0**

Source: Energy Regulation Board (ERB)

4.0 CHANGES IN PLAYERS IN THE INDUSTRY AND REASONS AND IMPACT OF SUCH CHANGES IN THE LAST 20 YEARS

4.1 The fuel supply chain comprising TAZAMA, INDENI and the NFT has not experienced any significant change over the years except for the change in the roles played by the three operators and the changes in management.

4.2 **TAZAMA**

TAZAMA was initially constructed to pump finished petroleum products from Dar-es-Salaam but it was converted into a petroleum feedstock pipeline after INDENI was built in 1973 and has been transporting petroleum feedstock since then.

4.3 **TOTAL/feedstock importation**

Total Outré Mer (Total)[4] was the sole importer of petroleum feedstock from November 2003 to July 2007. Indeni was also responsible for selling the processed petroleum products to OMCs (wholesale marketing). Prior to this, the importation of feedstock was done by the Zambia National Oil Company (ZNOC) which went into liquidation in 2002. In 2003, Trans-Sahara Trading (TST) was contracted to import petroleum feedstock though in the same year, the contract was repudiated as TST failed to comply with the contract terms.

4.4 In July 2007, the Government took over from Total the responsibility of importing petroleum feedstock. The Government appointed TAZAMA Pipelines Limited as its agent to manage the procurement of feedstock on its behalf in October 2007. TAZAMA also assumed the added responsibility of wholesale marketing of petroleum products. On the other hand, Indeni reverted to its core activity of petroleum feedstock processing.

4.5 **ZNOC**

The Zambia National Oil Company was, prior to its liquidation in 2002, responsible for the importation of feedstock and other petroleum products. Following the dissolution of ZNOC, there has been no dedicated entity charged with the responsibility of procuring feedstock. Presently, Government procures the feedstock for the Refinery.

4.6 **NDOLA FUEL TERMINAL**

The NFT was managed by ZNOC prior to its liquidation in 2002, after which INDENI took over the management of the facility. In 2006, attempts were made by Government to tender out the management of the NFT to the private sector. However, the process was not successful and TAZAMA was instead selected by Government to take over from INDENI in 2007.

4.7 **OIL MARKETING COMPANIES**

The number of OMCs has evolved as reflected in Table 3 over the past six years. The table indicates that the number of OMCs has grown from 19 in 2005 to 30 in 2011.

Table 3: Number of OMCs from 2005 to 2011

Year	2011	2010	2009	2008	2007	2006	2005
Total	31	29	28	28	25	23	19

4.8 The changes and growth in number of OMCs have been on account of the following:

[4] Total took over the operations of ENI/Agip in Zambia in November 2003 which included the 50% shareholding in the Refinery

- Through acquisitions of existing OMCs by new companies (e.g. Puma Energy took over BP). Other acquisitions have led to a reduction in the number of OMCs (e.g. Total's acquisition of Mobil and Engen's acquisition of Chevron);
- The liberalization of the economy attracted new investment from both local and foreign entrepreneurs;
- Growth in the fuel market, specifically the demand has given rise to more entrants in the sector;
- Attractive returns on investment; and
- Some OMCs have folded on account of operational problems, e.g. Zambezi Oil and Transportation Company Limited, and KAFCO.

5.0 DIFFERENT SOURCES OF PETROLEUM PRODUCTS ON THE MARKET, PRICING CONSIDERATIONS AND STRUCTURE

5.1 Zambia imports all of her petroleum products requirements. Most of the country's petroleum products requirements are met through the Refinery and other finished petroleum products that are directly imported into Zambia to supplement the volumes processed by Indeni Petroleum Refinery.

5.2 **Petroleum Feedstock**
The petroleum feedstock is mainly procured from the Middle East oil markets. The petroleum feedstock is transported by pipeline from Dar-es-salaam in Tanzania to the Refinery in Ndola.

5.3 **Feedstock Importer and Supplier**
The Feedstock is imported by Government through the Ministry of Lands, Energy and Water Development. Following a competitive Tender process, Government contracted Glencore of the UK to supply Feedstock under a two year contract from March 2010.

5.4 The petroleum feedstock imported is specifically tailored to the configuration of the Refinery and is best suited to meeting the needs of the Zambian market.

5.5 **Configuration of Indeni Refinery**
Indeni is not configured to process pure crude oil. It is not sophisticated enough to process pure crude as it cannot crack or break the heavier fuels such as HFO into lighter petroleum products like petrol and diesel. Being a simple Refinery, Indeni therefore processes a spiked or commingled feedstock.

5.6 The comingled or spiked feedstock procured for Indeni typically comprises the following products:

i. Pure crude oil;
ii. Condensate - this is a naturally occurring petroleum substance. It is derived from natural gas fields and contains lighter ends that are useful primarily for the petrochemical industry and also for making kerosene and petrol in a refinery; and
iii. A refined petroleum product usually gas oil (diesel).

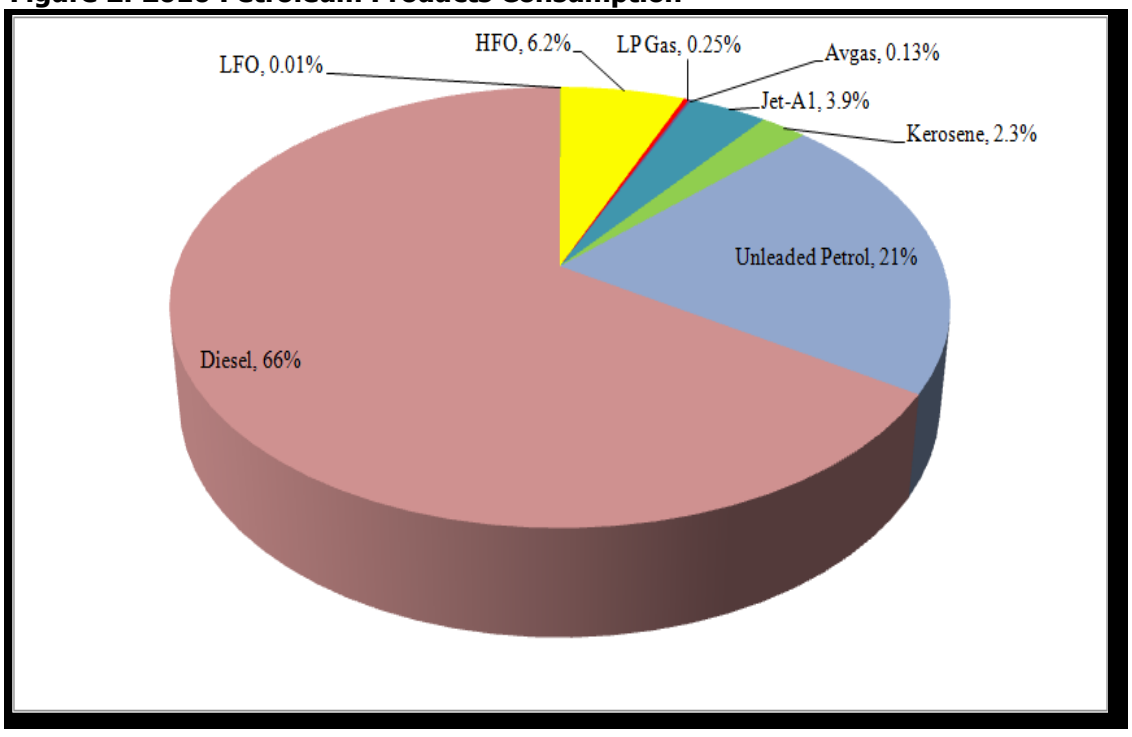
5.7 **Finished Petroleum Products**

Finished petroleum products are imported through road and rail to supplement local production. Petroleum products are imported from within the region mainly from South Africa, Mozambique and Tanzania or from other parts of the world through the neighbouring countries. Owing to Indeni's inability to produce Low Sulphur Diesel, Government awarded a contract to Dalbit to supply the Zambian market with low sulphur diesel. Further, to ensure product availability during Indeni Shut down, the Government also contracted Dalbit to supply some finished products.

5.8 **Consumption of Petroleum products**

Zambia's total domestic market consumption was 753,652 metric tonnes in 2010. The consumption by product in 2010 is reflected in Figure 2.

Figure 2: 2010 Petroleum Products Consumption



5.9 The consumption of diesel is at 66%, petrol 21%, HFO 6.2%, Jet A1 3.9%, with the remaining products comprising 2.9% of consumption.

5.10 Consumption of diesel which includes low sulphur diesel (LSD) is high on account of its wide usage in a variety of industries such as the mining, agriculture and transport sectors. All the LSD consumed in the country is imported because Indeni does not have the capacity to produce LSD.

6.0 PETROLEUM PRODUCTS PRICING

6.1 International Pricing

Like all other commodities, the prices of oil on the international market are determined by various factors, including demand, geopolitical situations, weather conditions etc, etc. The prices which Government pays for the feedstock is therefore dependant on the world market price ruling at a given time.

6.2 Wholesale Pricing

As the sector regulator, the ERB is responsible for the pricing of petroleum products on the **Zambian Market**. The petroleum products produced by the Refinery are priced using the Cost-Plus Pricing Methodology (CPM) which takes into account all the costs incurred in importing the feedstock, transporting it to Zambia, and refining it at INDENI. The CPM is used to determine the wholesale price of petroleum products and this is the price at which OMCs buy the product from the NFT.

6.3 The elements in the CPM that are used to compute the wholesale prices are shown in Table 4.

Table 4: CPM Cost elements

1. Cost of Petroleum Feedstock (supplier invoice/contract)
2. Cost of Freight from place of sale to Dar-es-Salaam (C&F)
3. Insurance
4. Ocean Losses = 0.3% of CIF
5. Wharfage (Harbour charges) = 1.25 % of C&F
6. Financing Charges, Collateral manager & Insurance costs
7. TAZAMA storage fee= $2/mt & Pumping fee= $48.52/mt
8. Import Duty = 5 %
9. Product Losses Incurred by both TAZAMA and INDENI
10. Agency Fee = US$ 5/mt
11. Refinery fee = US$56.1/mt
12. Handling and storage losses at the NFT

6.4 When petroleum products are imported by Government, the petroleum products are sold at the prevailing wholesale fuel prices as determined by the CPM. OMCs rarely import finished products due to the high import duty of **25%** on petrol and diesel. This import duty is meant to protect Indeni by discouraging OMCs from importing finished products.

Without the 25% import duty, finished products imported by OMCs would be cheaper than the Indeni products.

7.0 THE IMPACT OF THE INTRODUCTION OF THE UNIFORM PUMP PRICING

7.1 Uniform Pump Pricing (UPP) was introduced in September 2010 with the aim of reducing fuel costs in areas that are far from Ndola. Under UPP, urban consumers (i.e. Copperbelt, Kapiri Mposhi, Kabwe, Lusaka and Mkushi) pay slightly a higher price to subsidise the cost of transporting fuel to all other areas of the country.

7.2 Prior to the introduction of UPP, the cost of petrol, diesel and kerosene at retail sites farthest from the NFT was higher than the price obtaining at sites closer to the NFT. The UPP Mechanism is designed to be self financing through a Rural Fuel Subsidy Fund (RFSF). The UPP mechanism works in such a manner that OMCs with service stations that are located closer to Ndola contribute to the RFSF whilst OMCs with service stations farther away from Ndola claim from the RFSF. Independent dealers remit to or claim directly from the RFSF. It is important to note that the UPP mechanism only applies to fuel sold at retail pump stations and does not apply to fuel supplied by OMCs to commercial customers such as mines, commercial farmers construction companies under negotiated commercial contracts. Under these arrangements OMCs may sell fuel at prices above or below the UPP prices.

7.3 The receipts into and payments from the RFSF are managed by the ERB. A company called Ashfield Resources (Z) Ltd was contracted by Government to be the UPP manager. The UPP manager's role is to audit OMC claims and contributions into the UPP fund and also to develop a model to determine a UPP which would ensure that the net position is close to zero.

7.4 The UPP Mechanism has been well received by the general public and other stakeholders. Table 5 shows the pump price changes that resulted from the implementation of the UPP mechanism in September 2010 in the provincial headquarters.

Table 5: ERB computed uniform pump prices in K/L

TOWN	PETROL			DIESEL			KEROSENE		
	PRE-UPP PUMP PRICES	UPP PRICES	VAR	PRE-UPP PUMP PRICES	UPP PRICES	VAR	PRE-UPP PUMP PRICES	UPP PRICES	VAR
Kasama	8,390	**7,639**	-751	7,717	**6,999**	-718	5,598	**5,008**	-590
Livingstone	8,030	**7,639**	-391	7,355	**6,999**	-356	5,288	**5,008**	-280
Chipata	8,229	**7,639**	-590	7,556	**6,999**	-557	5,460	**5,008**	-452
Solwezi	7,825	**7,639**	-186	7,150	**6,999**	-151	5,111	**5,008**	-103
Ndola	7,461	**7,639**	178	6,786	**6,999**	213	4,798	**5,008**	210
Lusaka	7,573	**7,639**	66	6,898	**6,999**	101	4,893	**5,008**	115
Kabwe	7,543	**7,639**	96	6,868	**6,999**	131	4,868	**5,008**	140
Mansa	8,252	**7,639**	-613	7,579	**6,999**	-580	5,480	**5,008**	-472
Mongu	8,337	**7,639**	-698	7,664	**6,999**	-665	5,553	**5,008**	-545

7.5 Table 5 shows that pump prices in far-flung areas decreased significantly, for instance, the pump price on petrol decreased by as much as K751/litre (highest decline), but the corresponding increase in the urban areas was marginal for instance the pump price on petrol increased marginally by K178/litre (highest increase) in Ndola.

7.6 Consumers in outlying areas have commended the implementation of the UPP Mechanism because it has levelled the fuel prices across the country. Before its implementation, these consumers felt discriminated against because of their geographical location and this adversely affected their economic activities in comparison to those who are nearer to Ndola. It is expected that the UPP mechanism will translate into increased economic activity in these areas.

8.0 CHALLENGES IN THE PETROLEUM INDUSTRY AND PROPOSED SOLUTIONS

8.1 Some of the challenges in the petroleum industry and their possible solutions are discussed in this section.

8.2 **Infrastructure**

The state of repair of the major infrastructure in the petroleum supply chain, namely the Refinery, the Pipeline, and the NFT need to be addressed. These assets are all over thirty (30) years old and require some investment to make them more efficient. The Details of the required investments may be obtained from INDENI, TAZAMA and NFT.

8.3 **Petroleum Feedstock Configuration**

At the time the Refinery was constructed, the product demand mix was such that the heavier fuels like HFO were in greater demand on the Zambian market more than the lighter products like petrol and diesel. This meant that the petroleum feedstock had to contain more pure crude oil than the lighter products. (Crude oil is obviously cheaper than the finished or processed products).

8.4 Over the years, the product demand mix in the country has changed towards lighter fuels than heavy fuels and has led to a change in the petroleum feedstock imported. The feedstock refined at the Refinery now only comprises an average of about 32% of pure crude oil with the other components being 50% diesel and 18% heavy Naphtha. Zambia therefore imports a lot of diesel, (at high cost), mixes the already expensive diesel with crude oil and then reprocesses the material into diesel and other products. This structural absurdity, coupled with the long distance from the coast is primarily responsible for the high cost of fuel in Zambia. If Zambia imported and refined pure crude oil, the costs of the feedstock would have been much cheaper, and the resulting pump prices would have been lower.

8.5 **Proposed Solution to the Feedstock Configuration**

To address this structural problem, Indeni needs to be upgraded to process pure crude oil through the installation of components such as a hydro-cracker. Alternatively, Zambia needs to consider reverting the TAZAMA pipeline to transporting finished products. The implications of either option have been highlighted in numerous studies and papers presented to Government.

8.6 **Pricing**

The escalating global oil prices have had an adverse impact on pump prices in Zambia. In order to ameliorate these high prices, Government has had to keep prices constant for long periods of time through 'subsidisation'. While this has provided some temporal respite to consumers and overally the economy, the Treasury will still have to find money to finance the deficit incurred on most of the petroleum feedstock cargoes procured at higher prices on the international market but sold at below cost at the pump.

8.7 Despite the price stabilization provided by Government, petroleum pump prices in Zambia continue to be amongst the highest in the Sub-Saharan region.

8.8 The high prices of fuel in Zambia are attributable to two (02) main reasons, namely:

- The configuration of feedstock which includes a greater proportion of diesel; and

- The high taxes charged by Government on Fuel

Figure 3 & 4 below reflects regional comparisons of petrol and diesel pump prices.

Figure 3: Regional Petrol Pump Prices Comparison in October 2011

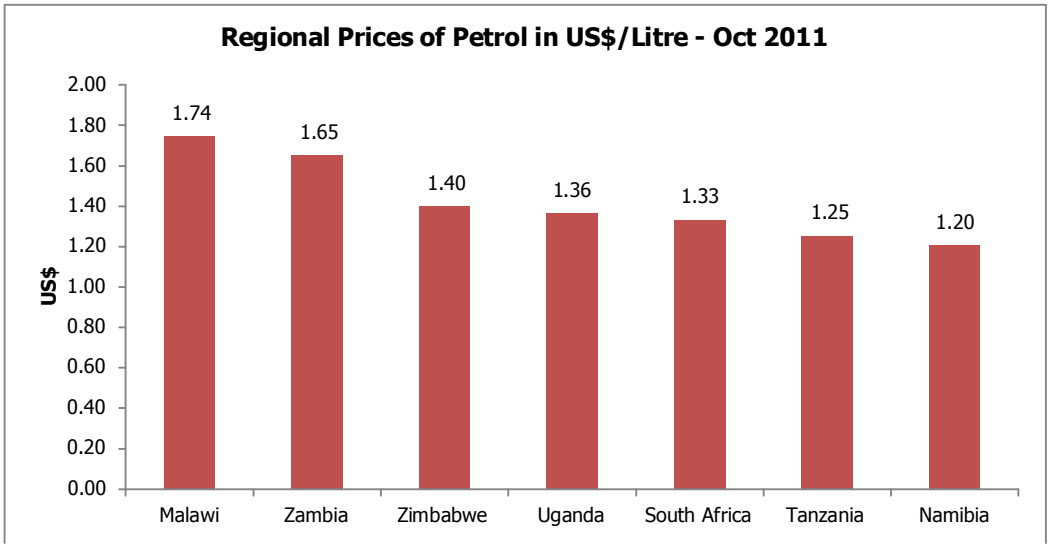
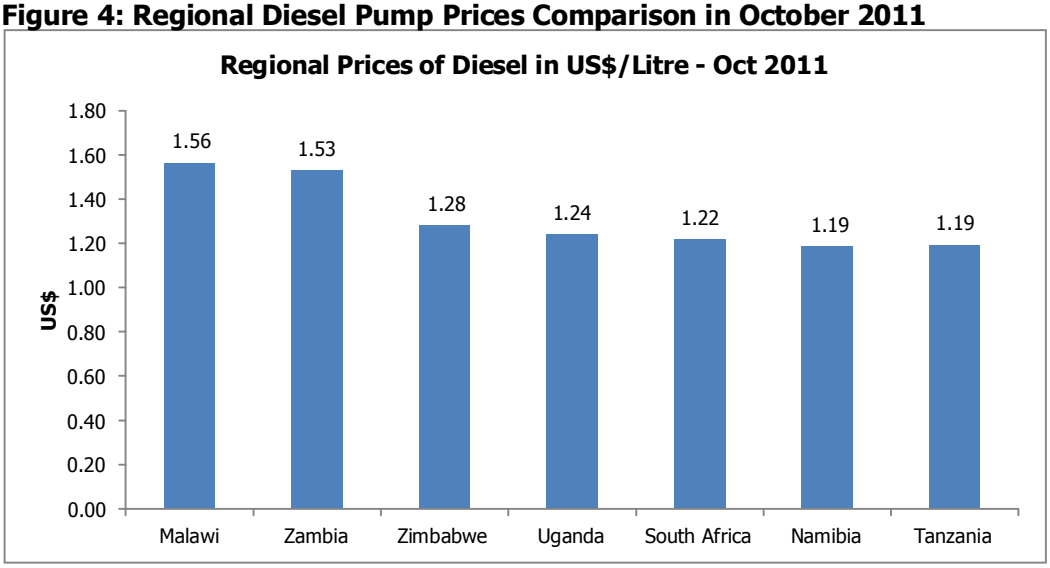


Figure 4: Regional Diesel Pump Prices Comparison in October 2011



8.9 Proposed solution to the high prices of fuel in Zambia

The large component of diesel in the feedstock imported by Zambia is largely responsible for the high cost of fuel in Zambia. As has already been mentioned, the question of feedstock configuration could be addressed by investing in the Refinery so as to enable it to process pure crude oil. Alternatively, the Government could consider reverting the Pipeline to the conveyance of finished products.

8.10 With respect to the taxes charged on fuel, Government is invited to consider the following measures:

- Reduce the rate of taxes on petroleum products
- Institute absolute figure taxes as opposed to the current ad volerum tax regime.

Table 6: Cost Elements as a Proportion of the Pump Price

	COST ELEMENT	PETROL	DIESEL	KEROSENE
		%	%	%
WHOLESALE PRICE	FEEDSTOCK CARGO (CIF)	38.04	48.25	59.63
	OTHERS	1.06	1.34	1.66
	FINANCE CHARGES	1.06	1.34	1.66
	TAZAMA PUMPING FEE	2.11	2.68	3.31
	TAZAMA PIPELINE LOSSES	0.53	0.67	0.83
	IMPORT DUTY	2.11	2.68	3.31
	REFINERY FEE	2.64	3.35	4.14
	REFINERY LOSSES	5.28	6.70	8.28
PUMP PRICE	NDOLA FUEL TERMINAL	0.31	0.33	0.49
	EXCISE DUTY + VAT	32.82	20.49	-
	TRANSPORTERS MARGIN	2.41	2.79	3.14
	OMC MARGIN	4.87	5.25	7.70
	DEALER / RETAIL MARGIN	3.22	3.48	5.10
	ERB FEES	0.62	0.64	0.74
	STRATEGIC RESERVES FUND	2.92	-	-
	UPP PUMP PRICE	**100.00**	**100.00**	**100.00**

NOTE: Others cost line comprises:- Warfage fees,TIPPER fees, Inland Insurance, Collateral Manager, TAZAMA Agency fee, Handling fee.

8.11 As Table 6 illustrates, the cost of feedstock and taxes are the major elements in the total cost of fuel in Zambia.

8.12 **Non Review of Margins**

The decision not to increase fuel prices has invariably meant that margins for the other players in fuel supply chain such as transporters, OMCs and dealers have also remained unchanged for long periods of time. These other operators in the petroleum supply chain have complained that the delays in periodic (annual) reviews of their margins have eroded their capital base.

8.13 It is critical that the margins for the operators are reviewed regularly, to enable the operators provide acceptable services whilst earning a just and reasonable return on their investments.

8.14 **Retail Distribution**

There is an imbalance in the distribution of service stations. While few service stations are found in the rural areas, OMCs continue to build more service stations in urban areas especially Lusaka and the Copperbelt Provinces. The proliferation of service stations in urban

areas tends to affect the margins per OMC as the retail volumes traded in the industry are shared by an ever growing number of service stations.

8.15 **Suggested Solution to the Challenge of uneven distribution of Retail facilities**

The ERB is in the process of developing guidelines which will restrict the issuance of licences for filling station within a prescribed radius or distance of each other. At a meeting held on Monday 5th December 2011, OMCs were informed of these measures. It is expected that once implemented, the measures will lead to the establishment of filling stations in other parts of the Zambia apart from Lusaka and the Copperbelt provinces. Apart from decongesting filling station in urban areas, it is hoped that the proposed measures will also somewhat address the issue of OMC margins.

8.16 Further to encourage development of retail facilities in outlying parts of the country, the ERB has developed the Rural Service Station concept, whose set-up costs are less onerous than for a regular service station.

8.17 **Security of Supply**

The continued absence of national strategic petroleum stocks poses a risk to the security of supply. Although efforts were made to compel the OMCs to keep 15 days operating stocks, this measure has been discontinued because the cost of keeping such stocks was removed from the fuel cost build-up by Government in October 2011. Government said it would keep such stocks. However, Government is currently still constructing storage facilities for such stocks. Once the storage facilities have been constructed and the strategic reserves procured, security of supply will be enhanced.

8.18 **Suggested solution to lack of storage facilities**

The ERB supports the rehabilitation and construction of storage facilities by the Government countrywide. In addition, the ERB has developed a licence to allow any interested persons to construct and operate storage facilities as a business.

9.0 CONCLUSION

9.1 While the downstream petroleum sector has evolved over the years, the spine of the Zambian Fuel Supply Chain has remained to be TAZAMA and INDENI. More than anything else, these two installations have the greatest impact on the profile and performance of the Zambian petroleum industry.

9.2 As long as the feedstock which is imported for Zambia continues to contain a higher proportion of diesel than was initially envisaged, the cost of fuel in Zambia will be higher than that obtaining in neighbouring countries. Zambia therefore needs to address this structural problem, if the high prices of fuel are to be contained.

9.3 The high taxes charged on fuel, and the ad volerum nature of these taxes only further accentuate the situation. With every rise in the pump prices, the amount of taxes collected by Government per litter of fuel also increases, placing a never ending burden on the consumer. If the taxes were absolute amounts, citizens would have a relief and prices would not be as high.

9.4 While there are increasing calls for Zambia to consider sourcing her petroleum requirements from alternative sources such as Angola, the numerous challenges presented by such options need to be well understood. The Angolan option would call for construction of a pipeline/rehabilitation of the Bengwela railway line and the upgrading of Indeni to crude refining capacity. Meanwhile, since Angola also imports her finished products requirements, she may not be in a position to supply Zambia with finished products. Given the lead times for pipeline construction, the Angolan Option may not offer an immediate or short term solution to the challenges faced by Zambia. Further, most oil shipping companies are concentrated in Western Europe, the Middle East and Asia Region. The cost of chartering a ship from Angola to Dar-es-Salaam is very high given the long distance from Angola via the Cape of Good Hope to Dar-es-Salaam.

9.5 Zambia has traditionally imported her finished products from South Africa. Lately, South Africa has been struggling to satisfy her local demand, implying that there may be no excess product to meet the export market.

9.6 In the meantime, given the Arabian Gulf's proximity to the port of Dar-es-Salaam compared with any other sources of oil (eg, Angola, South America) and considering that Zambia already has an existing Pipeline, imports through Tazama Pipeline remain Zambia's most viable option, albeit with some possible review as to the stock to be pumped.

APPENDIX 1

1	**Wholesale Price to OMC**		**a**
2	Terminal Fee	K25/litre	b
3	Excise Duty (incl.) road levy		c
4	**Ex-Refinery Gate price**		**D=(a+b+c)**
5	Transport Margin (to Lusaka)	K184/litre	e
6	UPP claim/charge	+ve/-ve	f
7	OMC Margin	K397/litre	g
8	15 days stock cost-line	K0/litre	h
9	**Total (excl VAT)**		**J=(d+e+f+g+h)**
10	Dealer Margin	K263/litre	k
11	**Price to Dealer**		**L= (j +k)**
12	ERB Fees	0.7%	m
13	Strategic Reserves Fund		n
14	**Price before VAT**		**Q=(l+m+n)**
15	VAT	16%	p
16	**Uniform Pump Price**	K/litre	**R=(q+p)**

Notes:

i) The build-up relates to the computation of pump prices for petrol, diesel and kerosene.

ii) Item 8 was reduced from K65/litre to K0/litre on 7th October 2011.

iii) Item 13 was reduced to K0/litre on all petroleum products except for petrol where it was reduced to K238/litre from K476/litre on 7th October 2011.