

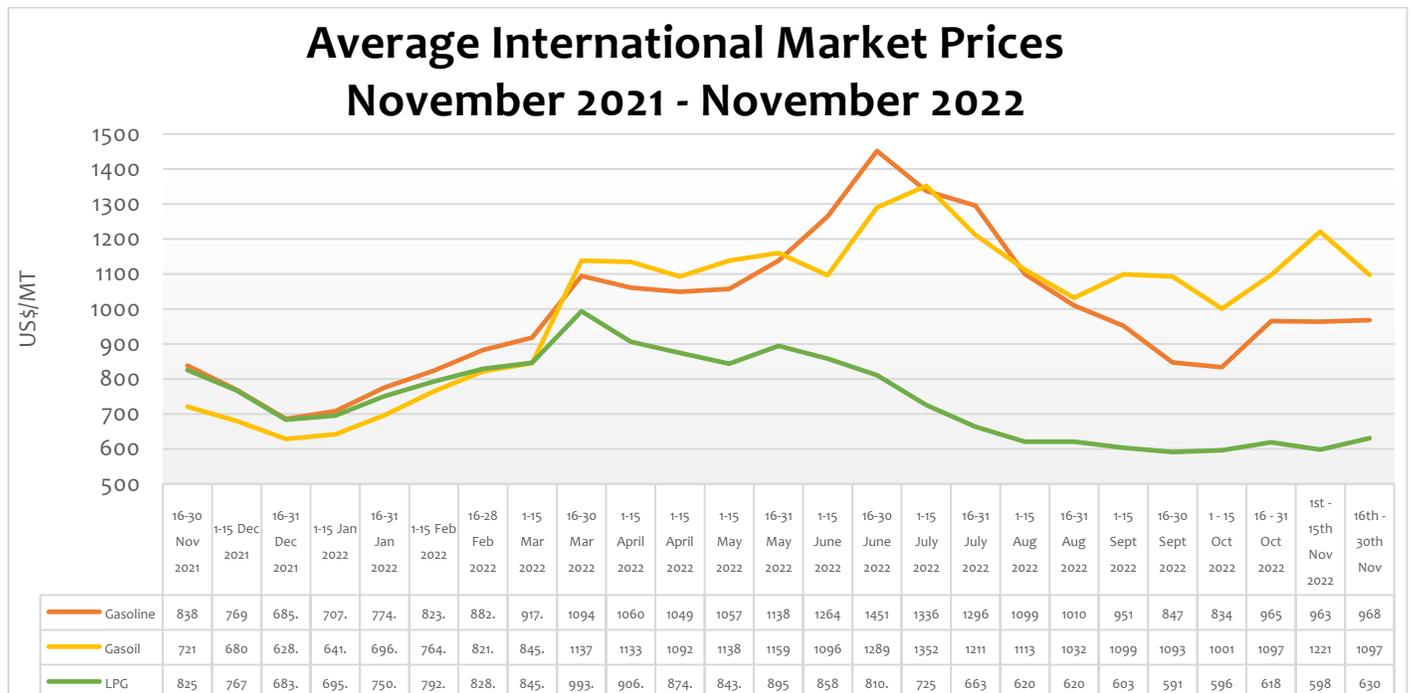


CBOD MARKET OUTLOOK

16th to 30th November 2022 Pricing Window

Refined Products Review and Outlook

The international market prices of refined petroleum products in the 27th October to 11th November 2022 international pricing window, which are premiums applicable to the selling window of 16th to 30th November 2022, witnessed diverse movements as petrol and LPG prices rose by 0.50% and 5.37% respectively while that of diesel declined by 10.14% relative to the previous pricing window of 12th to 26th October 2022. Due to fears of a global economic downturn and a stronger US dollar spurred on by rising interest rates in the US and Europe, oil prices have been falling on the international market since they peaked in June 2022. However, the preceding window saw an increase in diesel prices as a result of the OPEC+ announcement to cut output by around 2 million bb/d and the increased demand for diesel as a heating fuel throughout the winter. Prices are being driven further down by worries over the growing Covid-19 instances in China and the requirement to adopt strict steps to contain it.



In absolute terms, the international market prices for petrol, diesel, and LPG changed from US\$963.43/mt, US\$1,220.82/mt, and US\$598.27/mt in the previous window to US\$968.25/mt, US\$1,096.98/mt, and US\$630.40/mt in the pricing window under consideration.

The year-to-date changes in the international market prices of petroleum products stand at 37%, 71%, and -9% for petrol, diesel, and LPG respectively.

The price of petrol and diesel globally has increased by 16% and 54%, respectively, compared to the same time last year (16th to 30th November 2021), while the price of LPG has decreased by 24%.

FuFeX30

The Fufex30¹ is a 30-day forward GHS/USD FX rate for the petroleum downstream industry. It is estimated using the average quoted indicative forward forex rate from major oil financing banks adjusted by the covered-interest parity pricing model. The Fufex30 for the second selling window of November (16th to 30th November 2022) is estimated at GHS17.5000/USD, which is the weighted average of quoted indicative 30-day forward forex rate from major oil financing banks as monitored on the market and the Bank of Ghana FX auction rate to the BIDECS.

SUMMARY REPORT OF BANK OF GHANA FX AUCTIONS TO BIDECS		
Window	Percentage Offered	Auction FX Rate (GHS/USD)
16 th – 30 th Apr 2022	50%	7.4995
1 - 15 May 2022	50%	7.5014
16 th – 31 st May 2022	29%	7.5547
1 st – 15 th June 2022	24%	7.6144
16 th – 30 th June 2022	21%	7.7451
1 st – 15 th July 2022	21%	7.9252
16 th – 31 st July 2022	27%	7.9756
1 st – 15 th Aug 2022	42%	8.2620
16 th – 31 st Aug 2022	29%	8.8192
1 st – 15 th Sept 2022	30%	9.7554
16 th – 30 th Sept 2022	39%	9.8409
1 st – 15 th Oct 2022	50%	10.1716
16 th – 31 st Oct 2022	40%	10.7907
1 st – 15 th Nov 2022	36%	13.2474
16 th – 30 th Nov 2022	57%	13.3138

¹ The Fufex30 is a 30-day Ghs/USD forward fx rate used as a benchmark rate for BIDECS ex-ref price estimations.

The Ex-refinery Price Indicator (Xpi)

The Ex-ref price indicator (Xpi) is computed using the referenced international market prices usually adopted by BIDECS, factoring the CBOD economic breakeven benchmark premium for a given window and converted from USD/mt to GHS/ltr using the *Fufex30*.

$$XPI = \frac{(\text{International Market Price} + \text{CBOD Benchmark Premium}) \times \text{Fufex30}}{\text{Conversion Factor}}$$

Ex-ref Price Effective 16th to 30th November 2022

PRICE COMPONENT	Petrol	Diesel	LPG
Average World Market Price (US\$/MT)	968.25	1,096.98	630.40
CBOD Benchmark Breakeven Premium (US\$/MT)	120	230	170
Fufex30 (GHS/USD)	17.5000	17.5000	17.5000
Volume Conversion Factor (ltr/mt)	1324.50	1183.43	1000
Ex-ref Price (Ghs/ltr)	14.3785/Ltr	19.6227/Ltr	14.0070/kg
Price Tolerance	+1%/-1%	+1%/-1%	+1%/-1%

Taxes, Levies, and Regulatory Margins

The National Petroleum Authority (NPA) reviewed the Primary Distribution Margin (PDM) from GHp7/Lt of petrol, diesel, and kerosene to GHp13/Lt, effective 1st November 2022. Hence, all Oil Marketing Companies (OMCs) were advised to apply the new margins in their price build-ups. Moreover, the NPA suspended subsidies on Residual fuel Oil (RFO) effective 1st November 2022 as an interim measure to ease the financial burden on the Price Stabilization and Recovery Account (PSRA). Therefore, total taxes, levies, and regulatory margins for the 1st to 15th November 2022 selling window

stood at Ghp250/ltr for petrol, Ghp248/ltr for diesel, and Ghp162/kg for LPG, accounting for 14%, 11%, and 10% of ex-pump prices of petrol, diesel, and LPG for the selling window respectively.

Window 1st to 15th November 2022

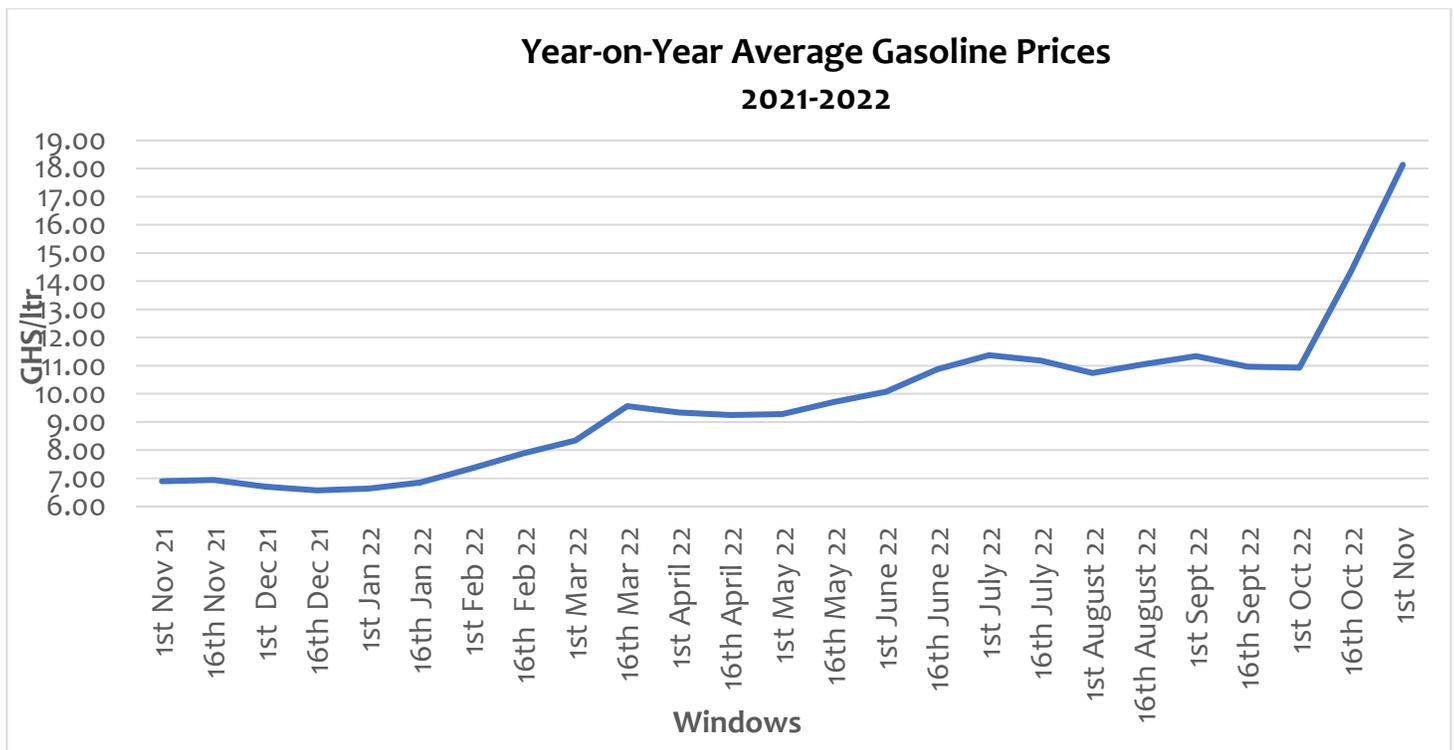
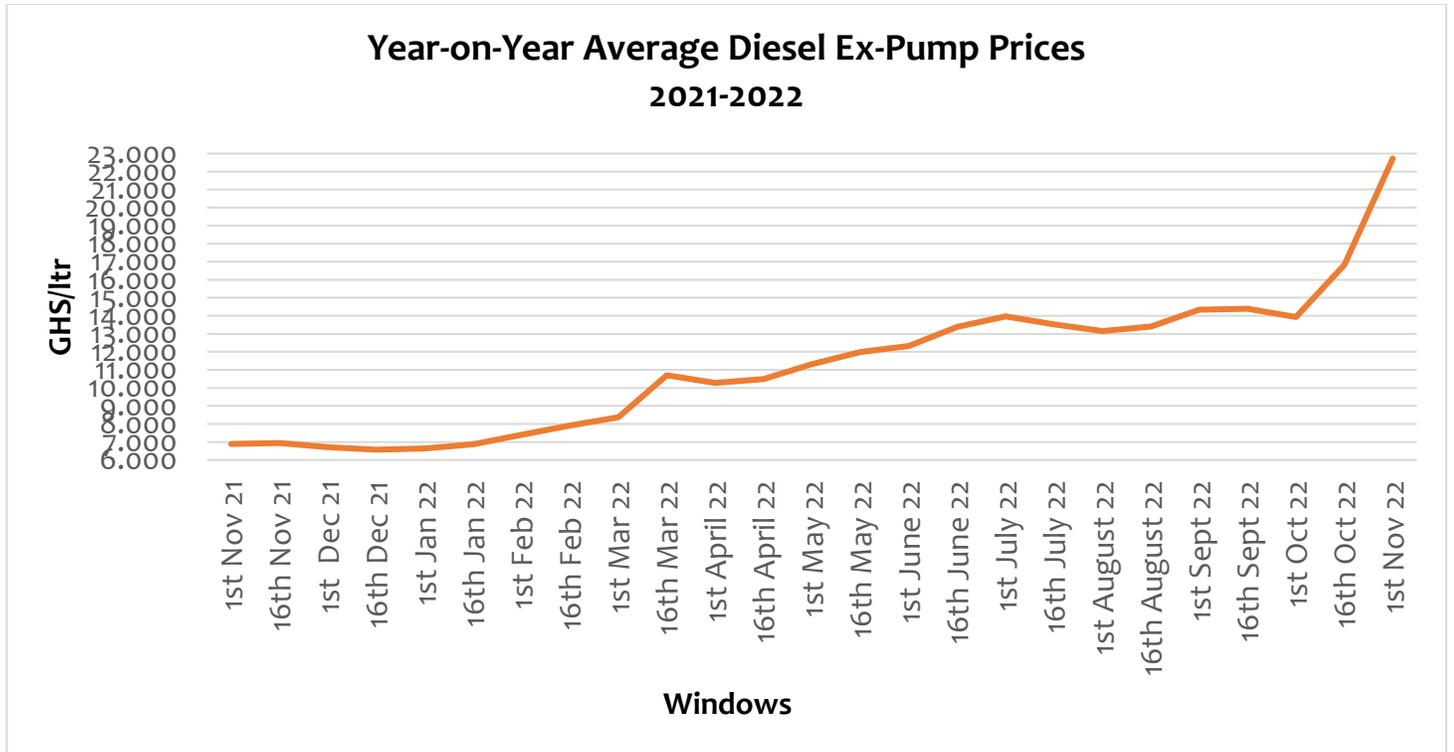
TRM Components	Gasoline (GHP/ltr)	Gasoil (GHP/ltr)	LPG (GHP/KG)
ENERGY DEBT RECOVERY LEVY	49	49	41
ROAD FUND LEVY	48	48	-
ENERGY FUND LEVY	1	1	-
PRICE STABILISATION & RECOVERY LEVY	16	14	14
SANITATION & POLLUTION LEVY	10	10	-
ENERGY SECTOR RECOVERY LEVY	20	20	18
PRIMARY DISTRIBUTION MARGIN	13	13	-
BOST MARGIN	7	7	-
FUEL MARKING MARGIN	4	4	-
SPECIAL PETROLEUM TAX	46	46	48
UPPF	36	36	36
DISTRIBUTION/PROMOTION MARGIN	-	-	5
TOTAL	250	248	162

OMC Pricing Performance: 1st to 15th November 2022

Pump prices for petrol and diesel within the 1st to 15th November 2022 selling window rose significantly by an average of 26% and 35% respectively relative to the previous window (16th to 30th October 2022). Although the BoG's auction of \$60 million to the BDCs for the purchase of petroleum products has contributed largely to stabilizing the pump prices, the recent significant rise in the pump prices was largely attributed to the sharp depreciation of the local currency against the Dollar within the selling window. Thus, compelling the Petroleum Service Providers (PSPs) to review their prices upwards to shield them from the risk of FX losses. Since the primary determinants of the Ex-refinery and Ex-Pump Prices are the GHS/USD exchange rate and the price of petroleum products in the global market, fluctuations in these variables will directly affect the prices of petroleum products at the pumps in Ghana.

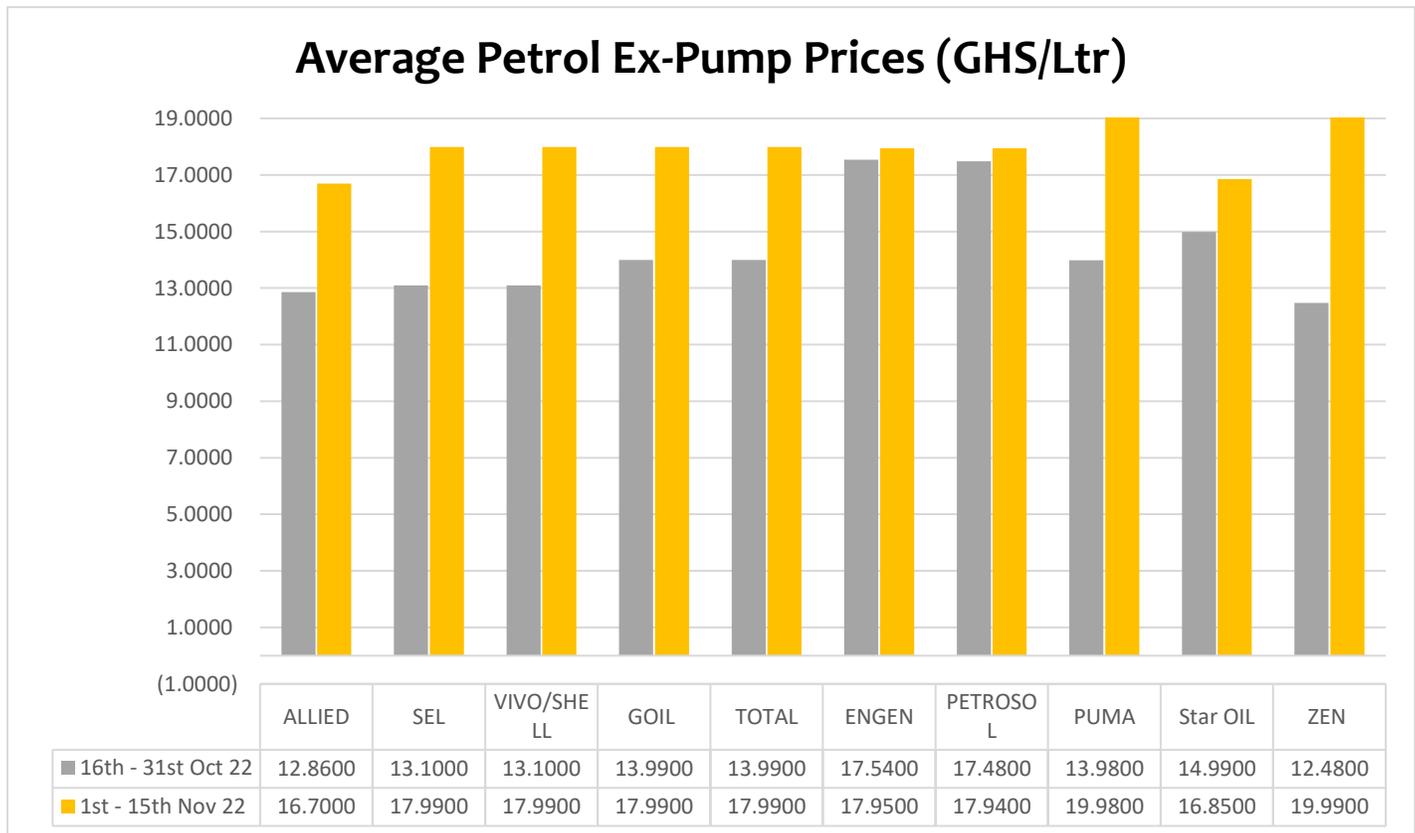
The pump price of petrol and diesel rose significantly from an average of GHS14.3510/ltr and GHS16.8170/ltr in the previous selling window (16th to 30th October 2022) to GHS18.1370/ltr and GHS22.7180/ltr. On a year-on-year basis, pump prices of petrol and diesel experienced approximately 163% and 230% increases over the period. This is an indication that from the beginning of the year until now, the ex-pump prices of petrol and diesel recorded an average of 173% and 242% increases

respectively, with petrol and diesel prices both increasing from GHS6.637/ltr in the first selling window of 2022 (1st-15th January) to GHS18.1370/ltr and GHS22.7180/ltr respectively in the first selling window of November 2022 (1st - 15th November).



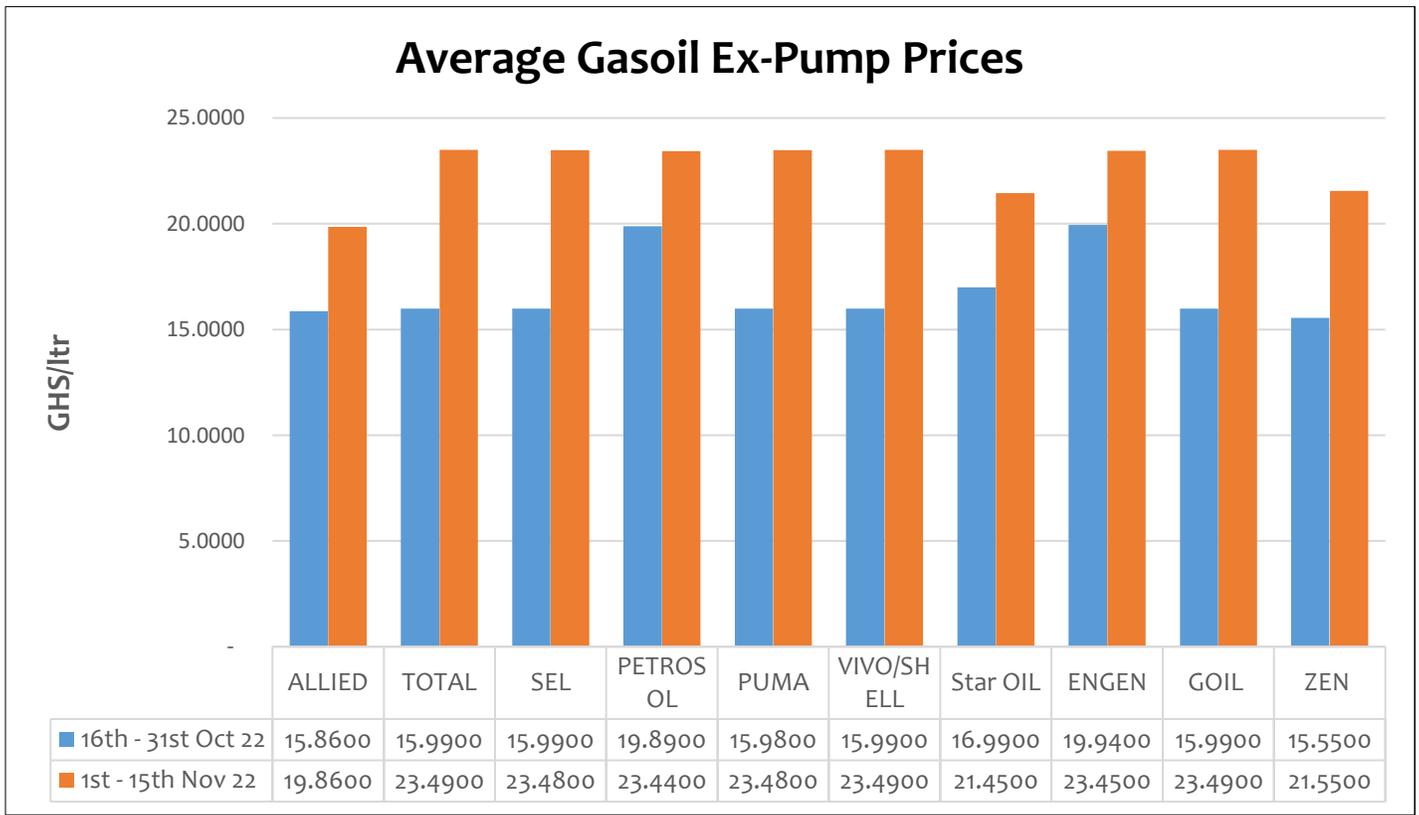
Average Petrol Ex-pump prices (GHS/ltr)

OMC	16 th – 31 st Oct 22	1 st – 15 th Nov 22	% Change
ALLIED	12.8600	16.7000	29.9%
SEL	13.1000	17.9900	37.3%
VIVO/SHELL	13.1000	17.9900	37.3%
GOIL	13.9900	17.9900	28.6%
TOTAL	13.9900	17.9900	28.6%
ENGEN	17.5400	17.9500	2.3%
PETROSOL	17.4800	17.9400	2.6%
PUMA	13.9800	19.9800	42.9%
Star OIL	14.9900	16.8500	12.4%
ZEN	12.4800	19.9900	60.2%
AVERAGE	14.3510	18.1370	26.4%



Average Diesel Ex-pump prices (GHS/ltr)

OMC	16 th – 31 st Oct 22	1 st – 15 th Nov 22	% Change
ALLIED	15.8600	19.8600	25.2%
TOTAL	15.9900	23.4900	46.9%
SEL	15.9900	23.4800	46.8%
PETROSOL	19.8900	23.4400	17.8%
PUMA	15.9800	23.4800	46.9%
VIVO/SHELL	15.9900	23.4900	46.9%
Star OIL	16.9900	21.4500	26.3%
ENGEN	19.9400	23.4500	17.6%
GOIL	15.9900	23.4900	46.9%
ZEN	15.5500	21.5500	38.6%
AVERAGE	16.8170	22.7180	35.1%



Weekly Petroleum Stock

The total petroleum stock available in the country at the beginning of the week, Monday 14th November 2022, comprised Petrol, Diesel, LPG, ATK, Kerosene, Premix, and RFO. The breakdown of the total stocks and expected weekly consumption in the country is presented below.

Product	Total Stocks (Million Lts)	Forecasted Weekly Consumption (Million Lts)	Week-to-Last	Cargoes at anchorage (Million Lts)	Week-to- Last including cargoes at anchorage
Diesel	200.6	53.0	4 weeks 1 day	88.9	5 weeks 2 days
Petrol	125.8	49.0	2 weeks 3 days	98.1	4 weeks 3 days
LPG*	16.1	7.5	2 weeks 1 day	0	2 week 1 days
ATK	40.2	5.0	8 weeks	0	8 weeks
Kero**	3.0	0.15	20 weeks	0	20 weeks
Premix	0.88	2.1	2 days	0	2 days
RFO	5.7	1.7	3 weeks 1 day	0	3 weeks 1 day

**LPG figures are in million kilograms *High Kerosene stocks are from previous productions by TOR / Woodfields*

Expected Cargoes in Week 46 (14th to 18th November 2022)

A total of about 187.0 million liters of petroleum products comprising 88.9 million liters of diesel and 98.1 million liters of petrol are expected within the week.

Atuabo Gas Processing Plant

The Gas Processing Plant (GPP) at Atuabo is currently producing LPG at an average rate of about 372.34MT/day.

Tema Oil Refinery

The RFCC unit at TOR remains shut down due to reconstruction, while CDU is also shut down due to a lack of Crude Oil.

Liquified Petroleum Gas (LPG) Imports

There is no LPG vessel expected for this week.

Fuel Oil Import

There is no Fuel Oil vessel expected for this week.

Aviation Turbine Kerosene (ATK) Imports

There is no ATK vessel expected for this week.

Expected Cargoes in Week 46 (14th to 18th November 2022)

NO.	BIDEC	Laycan	Volume Diesel (Lts)	Volume Petrol (Lts)	Vessel Name	Status
1	Eagle	Best Efforts	-	49,536,300	Elandra BLU	Financial Hold
2	Dominion		-	48,609,150	Nave Equinox	Financial Hold
3	Sage					
4	Fuel Trade		17,751,450	-	SCF Angara	Financial Hold
5	MOSL		23,668,600			
6	Juwel		21,420,083	-	Picton	Financial Hold
7	Dominion		13,017,730			
8	BOST		13,017,730			
Total			88,875,593	98,145,450		
Expected weeks to last			1 week 5 days	2 weeks		

Source: National Petroleum Authority