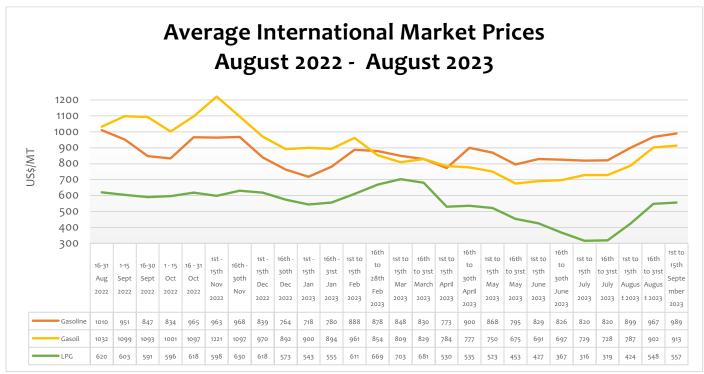
CBOD MARKET OUTLOOK

1st to 15th September 2023 Pricing Window

Refined Products Review and Outlook

The global demand for crude and petroleum products continues to hit record highs, boosted by strong summer air travel, increased oil use in power generation, and surging Chinese petrochemical activities. The International Energy Agency (IEA) has projected that the global demand for oil will grow by 2.2 million b/d in 2023. According to the Agency, the growth in global demand in 2023 is expected to be driven largely by the post-pandemic economic recovery in China. However, global crude oil demand is being threatened by the efforts to transition from fossil fuels to much cleaner sources of energy. It has been projected that global investment in renewable energy will rise to about USD1.7 trillion in 2023.



According to the World Energy Investment Report, investments in cleaner energy technologies such as electric vehicles, nuclear power, and low-emissions fuel will outpace investments in fossil fuels by about USD7.0 billion in 2023. Hence, according to the IEA's Market Report for August 2023, crude oil demand has been projected to grow slowly by about 1 million b/d in 2024, threatening the future of hydrocarbons.

Crude prices plunged in Q1 and Q2 to about USD82.3183 and USD78.3667 per barrel respectively due to weak economic performance in major countries such as the US and China as well as the EU. The global optimism for a post-pandemic recovery stalled in Q1 due to rising inflation and high interest rates, thus, resulting in crude prices falling sharply than estimated. Moreover, the Chinese economy which was estimated to drive about 70% of the growth in crude and petroleum product demand in 2023 failed to recover as projected. After significant declines in global crude prices in Q1, some OPEC+ nations voluntarily agreed to influence prices by cutting down output by about 1.2 million b/d starting in May 2023 through to the end of the year. According to Reuters, global oil supply plunged by 910 thousand b/d to 100.9 million b/d in July largely because OPEC+ production fell by 1.2 million barrels b/d to 50.7 million b/d in July 2023. This notwithstanding, production among the non-OPEC+ nations expanded by 310 thousand b/d in July 2023 and 1.6 million b/d from the beginning of the year, with the US accounting for about 80% (1.2 million b/d) of the increase. As a result, crude oil prices have risen significantly since the month of July to about USD 86.0 per barrel in the last selling window of August 2023.

The international market price of Petrol changed from USD967.29/MT to USD989.48/MT, Diesel from USD901.73/MT to USD912.68/MT, and LPG from USD547.52/MT to USD557.05/MT. The surge has been significantly influenced by the rise in global crude prices. Although refinery throughput has increased significantly by about 2.4 million b/d since May and 2.6 million b/d year-on-year, it has been inadequate to ease the supply tightness. As a result of these developments in the international market, petroleum product consumers in Ghana should prepare to pay higher at the pumps in the 1st to 15th September Pricing window.

On a year-on-year basis, while Petrol rose by 4%, Diesel, and LPG declined by 17%, and 8% respectively. But on a year-to-date basis, Petrol, Diesel, and LPG rose by 38%, 1%, and 3% respectively. From May 2023 to September 2023, Petrol, Diesel, and LPG prices in the global market have increased by about 24%, 35%, and 23% respectively. In the Pricing Window under review, Petrol, Diesel, and LPG prices in the world market rose by 2%, 1%, and 2% respectively relative to the previous window This recent surge in global petroleum product prices is driven by the optimism of economic recovery in China and the relatively weak performance of the US dollar against major trading currencies. Additionally, global crude prices are set to increase due to the sharp decline in observed oil inventories among the OECD countries in June 2023. Moreover, Reuters reports that oil and natural gas production in the US is set to decline in the month of September, which will further exacerbate the supply tightness amidst the

supply cut by the OPEC+ nations. This market tightening is expected to further increase the price of crude and petroleum products in Q4.

FuFeX30 And Spot Rates

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 first selling window of September (1st to 15th September 2023) is estimated at GHS11.8000/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. Hence, the estimated FX for a 30-day or 45-day credit sale is estimated at GHS11.8000/USD. The applicable spot rate for cash sales is GHS11.5500/USD based on average spot rates from commercial banks.

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 for sales on credit and spot FX rate for sales on cash.

Taxes, Levies, and Regulatory Margins

Total taxes, levies, and regulatory margins on petroleum products for the 16th to 31st August 2023 selling window remained unchanged relative to the previous window at GHS2.96/ltr for Petrol, GHS2.94/ltr for Diesel, and GHS2.01/kg for LPG. These accounted for 23% and 22% of the ex-pump prices of petrol and diesel respectively and 15% of the ex-pump price of LPG in the selling window under consideration.

Page | 3

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

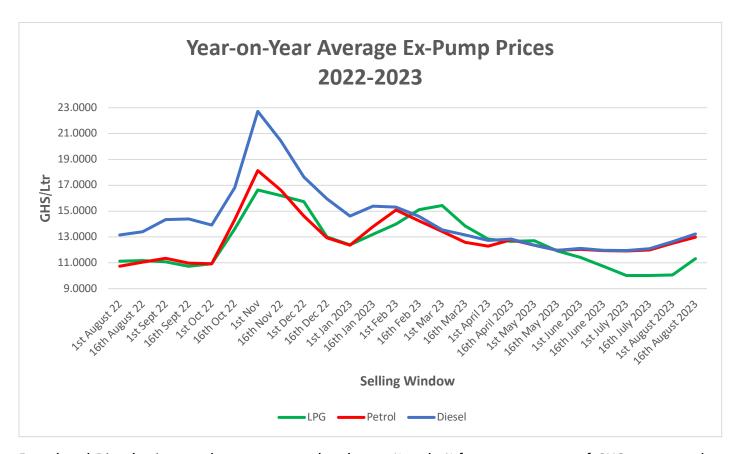
Selling Window 16th to 31st August 2023

TRM Components	Gasoline (GHS/ltr)	Gasoil (GHS/ltr)	LPG (GHS/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	9	9	-
FUEL MARKING MARGIN	5	9	-
SPECIAL PETROLEUM TAX	46	46	48
UPPF	75	75	75
DISTRIBUTION/PROMOTION MARGIN	-	-	5
TOTAL	2.96	2.94	2.01

OMC Pricing Performance: 16th to 31st August 2023

International Petroleum product prices have been witnessing a significant surge since the first selling window of July after some OPEC+ nations decided in April to voluntarily cut output by about 1.2 million b/d. The intervention by the OPEC+ nations led by Saudi Arabia was aimed at reducing crude supply to achieve higher crude prices after crude prices fell below expected levels in Q1. In April OPEC+ announced that Saudi Arabia and Russia will each reduce their production level by 500,000 b/d, followed by Iraq (211,000 b/d), the UAE (144,000 b/d), Kuwait (128,000 b/d), Kazakhstan (78,000 b/d), Algeria (48,000 b/d), Oman (40,000 b/d), and Gabon (8,000 b/d).

In another bid to further tighten the market and shore up oil prices, which continue to be weighed down by weak global economic indicators, Saudi Arabia announced an additional cut in production by 1 million b/d starting in July. Russia, which had already pledged a 500,000 b/d cut in production, said that it would lower crude oil exports by 500,000 b/d in August. This action by the OPEC+ nations is anticipated to increase pump prices in Q4.



Petrol and Diesel prices at the pumps rose by about 4% and 5% from an average of GHS12.5240 and GHS12.6260 to an average of GHS12.9900 and GHS13.2210 per liter respectively in the second selling window of August 2023.

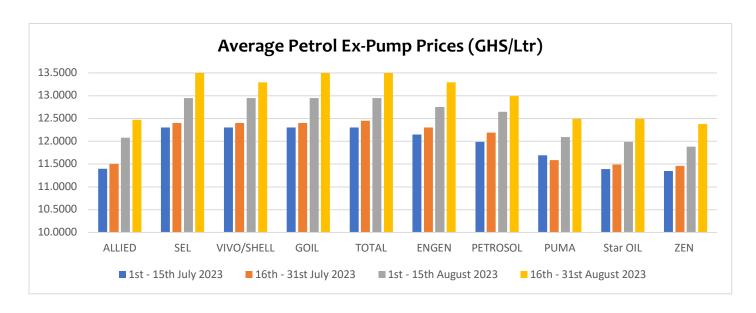
Pumps prices of Petrol and Diesel declined by about 34% and 47% respectively from November 2022 to July 2023 largely due to the slight appreciation of the Cedi against the Dollar and the sharp fall in international prices by 15% and 40% for Petrol and Diesel respectively within the same period. The decline in petroleum prices at the pump resulted in public transport drivers' associations reducing fares by about 10% in May 2023.

Although international prices continue to rise significantly, the recent appreciation of the Cedi against the US Dollar continues to slow the proportionate escalation of prices at the pumps. Since there is a significant impact of FX on pump prices, government policies aiming at achieving lower pump prices should target the stabilization of the local currency and make FX available to meet the demand for petroleum product importation.

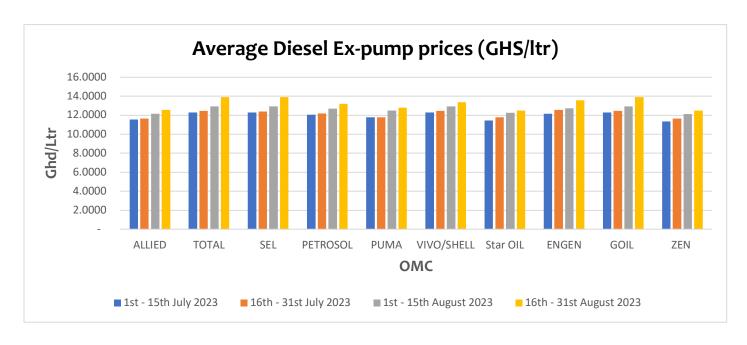
SUMMARY REPORT OF BANK OF GHANA FX AUCTIONS TO BIDECs			
Window	Percentage Offered	Auction FX Rate (GHS/USD)	
1 st – 15 th Feb 2023	29%	10.9875	
16 th – 28 th Feb 2023	27%	11.9095	
1 st – 15 th March 2023	29%	12.1203	
16 th – 31 st March 2023	21%	12.0158	
1 st – 15 th April 2023	20%	12.0000	
16 th – 30 th April 2023	24%	11.4467	
1st – 15 th May 2023	20%	11.7575	
16 th – 31 st May 2023	26%	11.6943	
1 st – 15 th June 2023	39%	11.1657	
16 th – 30 th June 2023	33%	11.1781	
1 st – 15 th July 2023	25%	11.3737	
16 th – 31 st July 2023	30%	11.3737	
1 st – 15 th August 2023	27%	11.3312	
16 th – 31 st August 2023	30%	11.3460	

BoG continues to auction FX to BDCs for the importation of petroleum products. The intervention was initiated to ensure that the Bulk importers of petroleum products have access to stable FX at the required volumes for the importation of petroleum products. The intervention was also aimed at providing relief to consumers from the adverse impact of the escalating pump prices because of the sharp volatility and unavailability of FX.

The BoG's bi-weekly FX auction to BIDECs in the window under review for the purchase of petroleum products was 30% of BIDECs' bid. BoG auctioned US\$20 million at a rate of GHS11.3460/USD to BIDECs for the purchase of petroleum products in the 16th to 31st August selling window. The FX rate auctioned by BOG to BIDECs was a depreciation of 0.13% compared to the previous auction rate.



The pump price of Petrol and Diesel rose to an average of GHS12.9900/ltr and GHS13.2210/ltr in the 16th to 31st August 2023 selling window. On a year-on-year basis, pump prices of Petrol experienced a 17% increase while diesel fell by 4% over the period. From January 2023 to the end of July 2023, pump prices of Petrol rose by 1% while Diesel prices fell by about 14%.



Compared to the first selling window of June 2023, Petrol and Diesel prices at the pumps rose by 5% and 6% respectively. Experts project that global crude oil prices will continue to surge to about USD90 per barrel.

Due to the continual rise in petroleum prices on the international market, Ghanaian consumers should expect pump prices of Petrol and Diesel to rise by at least 3% in the first selling Window of September 2023 (1st to 15th September 2023), if the Cedi/USD exchange rate either remains unchanged.