CBOD MARKET OUTLOOK

16th to 31st August 2023 Pricing Window

Refined Products Review and Outlook

Crude oil prices have risen significantly since the month of July, to about USD86 per barrel in the last selling window of August 2023. This rise has been largely attributed to supply tightness due to OPEC+ production cuts and renewed optimism about Chinese demand. The OPEC+ nations in April 2023 announced a significant cut in production by about 1.2 million barrels per day. This development led to a surge in crude prices in the month of April 2023. However, high inflation rates resulted in most central banks in the US and Europe increasing interest rates to unprecedented levels leading to a considerable slump in global demand for crude and petroleum products in Q2.



The international market price of Petrol, Diesel, and LPG surged from USD898.55/MT, USD786.73/MT, and USD423.75/MT in the previous window to USD967.29/MT, USD901.73/MT, and USD547.52/MT, respectively in the pricing window under review. On account of the price surge in the international market, petroleum product consumers in Ghana should prepare to pay higher prices at the pumps in Page | 1

the 16th to 31st August Pricing window. On a year-on-year basis, Petrol, Diesel, and LPG declined by 4%, 13%, and 12% respectively. However, on a year-to-date basis, Petrol, Diesel, and LPG rose by 35%, 1%, and 1% respectively.

Moreover, from May 2023 to August 2023, Petrol, Diesel, and LPG prices in the global market have increased by about 22%, 34%, and 21% respectively. In the Pricing Window under review, Petrol, Diesel, and LPG prices in the world market rose by 7%, 8%, and 29% 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. According to Reuters, the People's Bank of China is embarking on an expansionary monetary policy. The policy interns to lower the interest rate on a one-year Medium-term Lending Facility (MLF) loan worth 401 billion yuan (\$55.3 billion) to some financial institutions at 2.5%. This policy has raised confidence in the prospects of the recovery of the Chinese economy.

Reuters also reports that oil and natural gas production in the US is set to decline in the month of September 2023, which will further exacerbate the supply tightness amidst the supply cut by the OPEC+ nations. This development is expected to further increase the price of crude and petroleum products in the last quarter of the year.

FuFeX30 And Spot Rates

The Fufex30 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 August (16th to 31st August 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 **GHS11.4000/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 Page | 2

and converted from USD/mt to GHS/ltr using the FuFex30 for sales on credit and spot FX rate for sales on cash.

Ex-ref Price Effective 16th to 31st August 2023

| Price Component | Petrol | Diesel | LPG |
|--|------------|-------------|-----------|
| Average World Market Price (US\$/MT) | 967.2300 | 901.7300 | 547.5200 |
| CBOD Benchmark Breakeven Premium (US\$/MT) | 120 | 120 | 170 |
| Spot FX Rates | 11.4000 | 11.4000 | 11.4000 |
| FuFex30 (GHS/USD) | 11.8000 | 11.8000 | 11.8000 |
| Volume Conversion Factor (ltr/mt) | 1324.50 | 1183.43 | 1000.00 |
| Ex-ref Price (GHS/ltr) Cash Sales | 9.3583/ltr | 9.8423/ltr | 8.1797/kg |
| Ex-ref Price (GHS/ltr) 45-day Credit Sales | 9.6867/ltr | 10.1877/ltr | 8.4667/kg |
| Price Tolerance | +1%/-1% | +1%/-1% | +1%/-1% |

Taxes, Levies, and Regulatory Margins

Total taxes, levies, and regulatory margins on petroleum products for the 1st to 15th 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 24% of the ex-pump prices of petrol and diesel and 15% of the ex-pump price of LPG in the selling window under consideration.

The National Petroleum Authority (NPA) reviewed the Suppliers' Premium for Residual Fuel Oil (RFO) effective 16th July from USD230.97/MT to USD110.00/MT. The NPA reviewed the Suppliers' premium of RFO in September 2022 to incentivize BIDECs to supply RFO when local refineries which were the usual suppliers were unable to meet market demand due to supply disruptions. According to the NPA, local Page | 3

refineries have resumed the production of RFO in their usual capacities which can meet the local demand, hence the need to revise the suppliers' premiums of the product to correspond to the cost of production.

Selling Window 1st to 15th August 2023

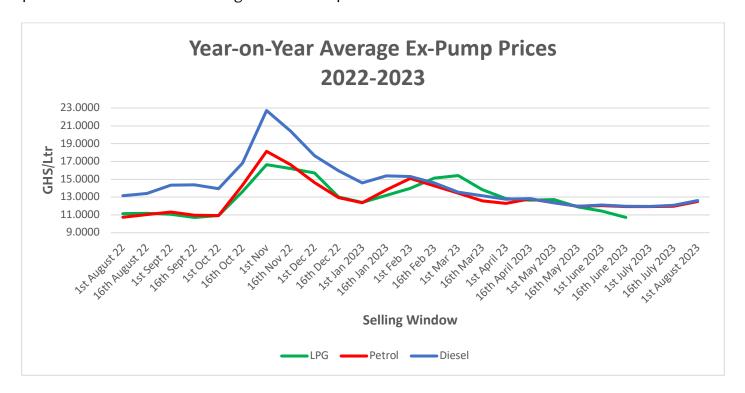
| TRM Components | Gasoline (GHS/ltr) | Gasoil (GHS/ltr) | LPG (GHS/KG) |
|-------------------------------------|--------------------|------------------|--------------|
| ENERGY DEBT RECOVERY LEVY | 49 | 49 | 41 |
| ROAD FUND LEVY | 48 | 48 | - |
| ENERGY FUND LEVY | 1 | 1 | - |
| PRICE STABILISATION & 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: 1st to 15th August 2023

International Petroleum product prices rose significantly in the 11th to 26th July pricing window, resulting in a surge in petroleum pump prices in the first selling window of August 2023. Petroleum Products at the pumps began to decline from November 2022, after peaking at about GHS23 per liter of Diesel and GHS18 per liter of Petrol. Petroleum pump prices declined consistently to as low as GHS12.3 per liter of Petrol and GHS14.3 per liter of Diesel in January 2023 due to the slight appreciation of the Cedi in December 2022. The decline in petroleum prices at the pump resulted in public transport drivers' associations reducing prices by about 10% in May 2023. This brought some relief to both public transport users and private drivers.

Although pump prices rose slightly in April 2023, it was largely attributed to the announcement by the OPEC+ nations to cut production by about 1.2 million barrels per day. This intervention by the OPEC+ nation was intended to raise the prices of crude and petroleum products on the global market. Pump prices plummeted again in May due to the steady performance of the Cedi when Ghana secured the

IMF loan approval. The appreciation of the Cedi in the first selling window of May resulted in pump prices of Petrol and Diesel falling below GHS12 per liter.



Petrol and Diesel prices at the pumps rose from an average of GHS12.0180 and GHS12.1390 to an average of GHS12.5240 and GHS12.6260 per liter respectively. Hence, Petrol and Diesel pump prices rose by about 4% in the first selling window of August 2023. Due to the continual rise in petroleum product prices on the international market, consumers should expect pump prices of Petrol and Diesel to rise by about 5% in the second selling Window of August 2023 (16th to 31st August 2023). Although international prices continue to rise significantly, the recent appreciation of the Cedi against the US Dollar continues to suppress 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 BDCs at competitive rates.

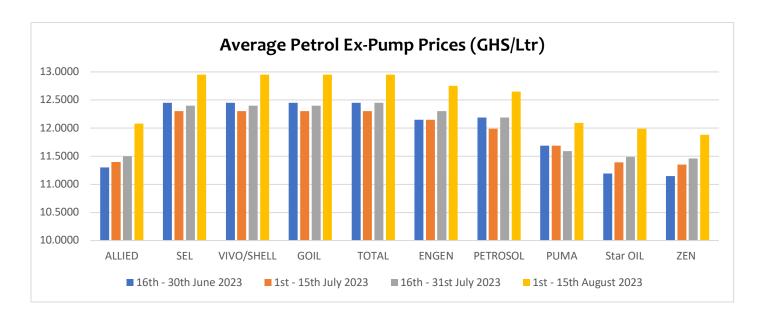
| SUMMARY REPORT OF BANK OF GHANA FX AUCTIONS TO BIDECs | | | | |
|---|--------------------|---------------------------|--|--|
| Window | Percentage Offered | Auction FX Rate (GHS/USD) | | |
| 1 st – 15 th Feb 2023 | 29% | 10.9875 | | |
| 16 th – 28 th Feb 2023 | 27% | 11.9095 | | |
| 1 st – 15 th March 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 |

The 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 GHS11.3737/USD to BIDECs for the purchase of petroleum products in the 1st to 15th August selling window. The FX rate auctioned by BOG to BIDECs was the same as the previous auction rate.

The pump price of Petrol and Diesel rose to an average of GHS12.5240/ltr and GHS12.6260/ltr in the 1st to 15th August 2023 selling window. On a year-on-year basis, pump prices of Petrol experienced approximately 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 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 would continue to surge to about USD90 per barrel. This implies that petroleum product prices will most likely surge if the Cedi/USD exchange rates either remain the same or the Cedi depreciates.

