



GAS PRICING FOR A SUSTAINABLE ENERGY SECTOR IN GHANA

**PRESENTATION OF GNPC'S PROPOSAL TO PURC FOR
MULTI-YEAR TARIFF PERIOD 2022-2027**

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OUTLINE OF PRESENTATION

1

Cost- reflective gas pricing

Some key principles

4

Expected offtake and Commitments

2

Key assumptions

Underlying the analysis

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Conclusions

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Gas Commodity Costs

Multi-year with breakdown.

KEY PRINCIPLES FOR GNPC'S COST RECOVERY

1.

Pass-through costs

- **Commodity Costs plus direct services costs as pass-through**

2.

Gas volumes

Based on:

- **Field capacity/requirements**
- **GPP capacity**
- **Contractual obligations**
- **Opportunity costs**

3.

Transportation tariff

- **WATSC2 (WAPCo) is pass-through**
- **WATSC 1 (GNGC's) is determined by PURC; Should factor in repayment of CBD Loans by MoF**

4.

Processing tariff

- **Gas processing costs should take into account value of Natural Gas Liquids (NGLs) & repayment of CBD Loans by MoF**

5.

Periodic cost escalations

- **This is specific to each individual contract.**

COST RECOVERY GAS PRICING

WACOG = Gas Commodity Costs (GCC) + Regulated Service Charges (RC)

▪ Where:

- **GCC** is Weighted Average Commodity Cost (**WACC**) incurred by GNPC from upstream

sellers. i.e., from Jubilee , TEN, Sankofa, LNG

- Also includes Weighted Aggregate Service Costs (**WASC**), made up of:

- WAGP Transmission Cost (reverse flow)
- Gas Management Services Cost
- VRA Gas Interconnection Cost (VGIF)
- Gas Contracts Financing Cost

- **Regulated Costs (RC)**

- GNGC Processing +Transmission (including Prestea - Kumasi Pipeline Cost)
+ PURC Regulatory Levy

KEY ASSUMPTIONS



Jubilee Foundation Volume to be exhausted end Q3 2022 Jubilee

1

2

State Royalty and GNPC share of Jubilee, TEN and Sankofa priced at the respective prices



LNG expected Q3, 2022

3

4

- Annual growth in demand assumed at 10% p.a.
- US inflation assumed at 4.7% 2022 & 2023, then to fall



- Offtake for 2022 would be as follows (MMscfd):
- Jubilee/TEN – 126; Sankofa – 200; LNG – 53; N-Gas - 30

5

6

Expected increase in processing capacity by end 2024

KEY ASSUMPTIONS (CONT'D)

Additional Assumptions	2022	2023	2024	2025	2026	2027
Gas Demand Growth Factor	1.1000	1.1000	1.1000	1.1000	1.1000	1.1000
Escalation Factor on Commodity Prices	1.0470	1.0470	1.0350	1.0300	1.0200	1.0200
GNPC Discount on WAGP	0.1579	0.1653	0.1711	0.1762	0.1798	0.1834

Gas processing capacity increases and Jubilee + TEN are able to supply up to 170MMscfd from 2024

KEY ASSUMPTIONS (CONT'D)

GAS VOLUMES AND PRICES BY SOURCE - 2022

	JUBILEE	TEN	SANKOFA	LNG	N-GAS
VOLUME (MMSCFD)	116	10	200	53	30
VOLUME (%)	28%	3%	49%	13%	7%
PRICE (USD/MMBTU)	2.2647	0.6198	8.7200	7.7000	7.5803

The N-Gas Contract is managed by VRA. These are therefore placeholders only. Please see VRA for definitive numbers

GAS COMMODITY COST - 6 YEAR LOOK AHEAD

GAS COMMODITY COSTS: 2022 - 2027 (US\$/MMBTU)

Item	2022	2023	2024	2025	2026	2027
WACC	6.5206	7.3848	7.7344	7.6305	7.8335	8.0436
WASC	1.3937	1.2930	1.2090	1.3081	1.2705	1.2319
GCC	7.9143	8.6778	8.9434	8.9387	9.1039	9.2755

GAS COMMODITY COST - 6 YEAR LOOK AHEAD - BREAKDOWN

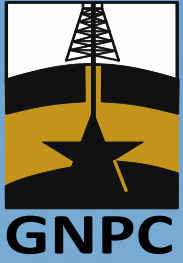
S/N	Cost Item	2022	2023	2024	2025	2026	2027
Commodity							
1.	Sankofa	8.7215	9.1298	9.4494	9.7329	9.9275	10.1261
2.	TEN	0.6198	0.6489	0.6717	0.6918	0.7056	0.7197
3.	Jubilee	2.2647	2.3711	2.4541	2.5277	2.5783	2.6556
4.	Tema LNG (expected to commence Q3, 2022)	7.7000	10.1004	10.1004	10.1004	10.1004	10.1004
Service Charges							
5.	WAPCo Transportation Charges	2.4248	2.5388	2.6581	2.7378	2.7926	2.8484
6.	GNPC's Discount for TTIP Investment	0.1579	0.1653	0.1711	0.1762	0.1798	0.1834
7.	Gas Contract Management Charges	0.0843	0.0843	0.0843	0.0843	0.0843	0.0843
		0.0432	0.0432	0.0432	0.0432	0.0432	0.0432
8.	VRA Gas Interconnection Facility	0.0150	0.0150	0.0150	0.0150	0.0150	0.0150
9.	GNPC'S Contract Financing Service Costs	0.0855	0.0855	0.0855	0.0855	0.0855	0.0855
10.	West to Kumasi Pipeline Charge	1.7817	1.7817	1.7817	1.7817	1.7817	1.7817

EXPECTED GAS OFFTAKE & COMMITMENTS

	2022	2023	2024	2025	2026	2027
Expected Gas Offtake (MMscfd)	408	449	496	544	598	658
Sankofa	200	170	173	171	180	233
Jubilee	116	112	112	126	133	140
TEN	9.4	12.6	13	30	30	30
LNG	53	125	148	187	225	225
N-Gas	30	30	50	30	30	30
GNPC Gas Offtake Commitment (MMscfd)	359	357	480	530	530	530
Sankofa	180	180	180	180	180	180
Jubilee	116	112	112	112	112	112
TEN	9	13	13	13	13	13
LNG	54	52	175	225	225	225

CONCLUSIONS

- GNPC commends PURC for the Multi-year tariff programme
- The gas landscape is changing; no more free gas; cost is rising
- It's important to maintain cost-reflective pricing
- Quarterly adjustments are key to keep up with costs
- For the effective operations of the Cash Waterfall Mechanism, maintaining market foreign exchange rate is key



Thank you
Any Questions?

