



**NIGERIA EXTRACTIVE INDUSTRIES TRANSPARENCY  
INITIATIVE (NEITI)**

**REPORT ON  
PROCESS OF PRICING OF FEDERATION EQUITY  
CRUDE**

Presented by

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<b>TABLE OF CONTENTS</b>		<b>PAGE</b>
1.0.	Introduction .....	2
2.0.	Scope of work .....	2
3.0.	Task Performed.....	3
4.0.	Pricing philosophy and basis of Official Selling Price (OSP).....	3
5.0.	Comment on whether Nigeria succeeded in realizing revenues from crude sales.....	4

<b>Appendix</b>	<b>Title</b>
1-	Schedule of pricing shortfall- Export Crude
2-	Schedule of pricing shortfall- Domestic Crude
3-	Schedule of converting aggregated monthly dollar invoices into naira
4-	Management response to the audit inquiry

## 1. Introduction

The NNPC-COMD is saddled with the responsibility to lift, price, market and sell all Government crude oil entitlements on behalf of the Federation. The proceeds from the sale of the various lifting are however accounted for through designated foreign and local bank accounts with JP Morgan Chase, Bank of International Settlement<sup>1</sup> and CBN for each of the parties. Thus, The Federation equity crude oil and gas is accounted for directly by the NNPC while the sales proceeds with respect to crude oil and gas lifting for Royalty and Petroleum Profits Tax/Companies Income Tax as well as Education Tax are accounted through bank accounts opened and maintained by the DPR and FIRS respectively.

## 2. Scope of Work

- a. To undertake a review of the procedures for price setting of equity crudes, with attention to the arrangements for ensuring that income to the Federation is realized in a manner consistent with market conditions. For this purpose, COMD shall provide a comprehensive listing of all sales which should have been reconciled to DPR export fiscalisation and refinery supply data.
- b. To review sales to NNPC and its subsidiaries, as well as any alternative product arrangements.
- c. To analyze the pricing of the main grades of crude for shipment and compare it against benchmark crudes on a test basis (meaning, an evaluation by the Consultant that the established procedures had been in fact followed, and conducting a reasonable test of actual prices secured relative to benchmark prices).
- d. To comment on whether Nigeria succeeded in realizing revenues from crude sales in a manner consistent with market conditions;
  - i. Obtain from COMD, full access to its records of benchmarks, records of deliberations on price setting, records of decisions taken and studies undertaken in relation to pricing.
  - ii. Not to re-evaluate price setting systems utilized, or the terms and conditions pertaining to the price setting of crude, that were covered in previous audits, except to the extent that the COMD has undertaken any material modification of such, in which case the Consultant is to provide an evaluation of such modification and recommendations as to necessary improvements, if any.

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<sup>1</sup> **Bank of international settlement (BIS)** : - Due to change in US financial policy to minimize financial exposure of all US Banks (JP Morgan inclusive), a transit bank account was opened with Bank of International Settlement (BIS) by the CBN – whereby, JP Morgan was mandated based on the US Policy to sweep all receipt on a weekly basis to the BIS.

### 3. Task performed

- a. Reviewed the procedures for price setting of equity crudes, with attention to the arrangements for ensuring that income to the Federation is realized in a manner consistent with market conditions. For this reason, COMD shall provide a comprehensive listing of all sales which should have been reconciled to DPR export fiscalisation and refinery supply data.
- b. Reviewed sales to NNPC and its subsidiaries, as well as any crude-for-product “swap” sales.
- c. Analyzed the pricing of the main grades of crude for shipment and compare it against benchmark crudes on a test basis (meaning, an evaluation by the Consultant that the established procedures had been in fact followed, and conducting a reasonable test of actual prices secured relative to benchmark prices).
- d. Commented on whether Nigeria succeeded in realizing revenues from crude sales in a manner consistent with market conditions.
- e. Reviewed records of benchmarks, records of deliberations on price setting, records of decisions taken (i.e. letter of election by customers/ off takers vis-à-vis the NNPC price valuation report); and studies undertaken in relation to pricing.

### 4. Pricing Philosophy and basis for official selling price

#### 4.1. Pricing philosophy

Federation Crude oil pricing has two (2) major pricing components- namely, the average dated Brent and the Official Selling Price (OSP).

Specifically, there are three (3) pricing options- namely, prompt (by default), advanced and deferred:

- **Prompt (by default) pricing option** is calculated as average of five (5) working days dated daily Brent in international market - (i.e. **first working day** in international market **will be a day after the bill of lading date**) **plus or minus** differentials based on the NNPC published official selling price. For prompt (by default), the customers/off takers are not mandated to give a prior “written” notice to NNPC on the elected pricing option.
- **Advanced pricing option** is calculated as average of five (5) working days dated daily Brent in international market - (i.e. the **first five working day** in international market **before the bill of lading date**) **plus or minus** differentials based on the NNPC published official selling price. For Advanced pricing option, the customers/off takers are mandated to give a prior “written” notice to NNPC on the elected pricing option.
- **Deferred pricing option** is calculated as average of five (5) working days dated daily Brent in international market - (i.e. the **first working day** in international market **will be the Sixth day after the bill of lading date**) **plus or minus** differentials based on the NNPC published official selling price. For Deferred pricing option, the customers/off takers are mandated to give a prior “written” notice to NNPC on the elected pricing option.

#### 4.2. Basis of Official Selling Price

NNPC Crude oil Official Selling Price (OSP) is derived on the following basis and assumptions:

- a. The Nigeria trading cycle range from the last day of NNPC curtailment meeting of the previous month (M-1) to the first day of NNPC curtailment meeting of the current month (M).
- b. Bonny light, Qua Iboe, Forcados, Agbami, Escravos, Brass, Akpo, Bonga, Amenam, Erha and Zafiro are assessed based on the monthly average of their respective spot differentials based on reported trades of crude cargoes published by Platts, Argus and ICIS- **London Oil Report (LOR)** covering the Nigeria trading cycle.
- c. Yoho, Pennington light, EA, Okono blend, Okwori, Oyo, Abo, Obe, Antan, Ukpokiti, Ima, Okwuibome and Ebok are assessed based on the monthly average of **Refinery Gate Values (RGV)** for each grade at a typical North West Europe complex refinery published only by Argus and covering the Nigeria trading cycle.

Further detailed description on process of pricing of federation equity crude can be found in previous NEITI Oil & Gas Audit Report.<sup>2</sup>

#### 5. Comment on whether Nigeria succeeded in realizing revenues from crude sales

In establishing on whether Nigeria succeeded in realizing revenues from crude sales in a manner consistent with market conditions, the audit reviewed NNPC-COMD populated template vis-à-vis the document “NNPC Crude oil Official Selling Price (OSP) Methodology and Assumptions/ Justifications” issued by COMD and federation export and domestic crude profile. In addition, the audit carried-out price compliance/consistency test on crude oil (export as well as domestic) lifting transactions.

##### **Price compliance testing procedure includes;**

- Price option selected confirmed to the invoice price and letter of option (especially for deferred and advance pricing options respectively).
- The 5 working days average dated Brent (price) confirmed to the valuation sheet.
- Differential for crude stream/type as per NNPC published Official Selling Price (OSP) confirmed to valuation sheet.
- Final unit price (i.e. average dated Brent and OSP) based on selected pricing option agreed to invoice and valuation sheet.
- Recomputed unit price is compared with NNPC unit price- in order to establish any shortfall variance) in pricing.

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<sup>2</sup> See: <http://www.neiti.gov.ng/phocadownload/NEITI-Oil-Gas-Report-2014-Full-Report-190417.pdf>  
<http://www.neiti.gov.ng/phocadownload/Appendix-B-Process-Pricing-Federation-Equity-Crude-Oil.pdf>

**Based on the foregoing, below are observations:**

a. For federation export crude:

**Audit findings/ observations;**

- The federation export crude oil monthly average selling price (\$) per barrel is computed using the monthly total of sales and monthly total of quantity (barrels). Therefore, the annual average selling price was **\$52.16 per barrel** in 2015 (2014: **\$101.91 per barrel**). Below is the analysis:

Table 5.1.

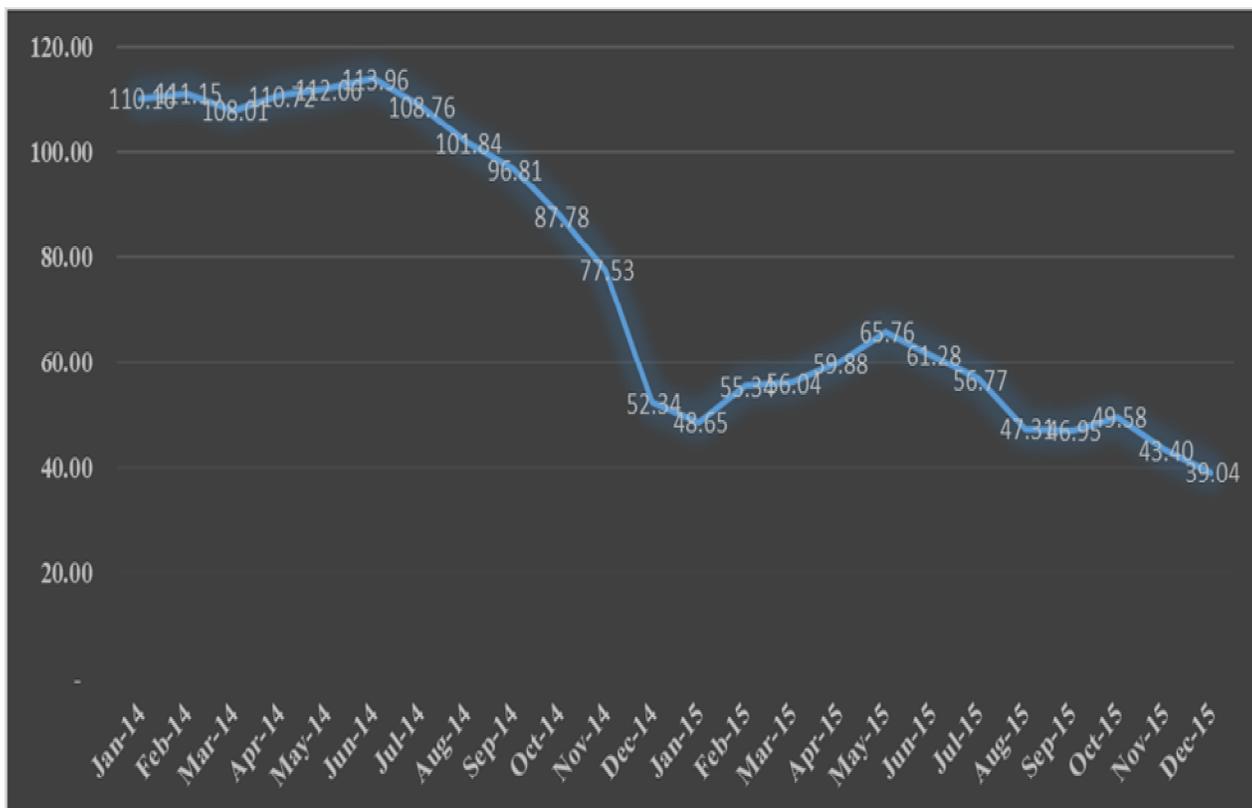
Monthly Analysis of Export Crude Oil Sales Value and Volume

Year	Month	Total Volume (A)	Total Value (B)	Monthly Average Unit Price (C=B/A )
		Bbls'000	US \$ '000	US \$
2014	January	8,476.75	933,797.27	110.16
2014	February	6,548.79	727,925.50	111.15
2014	March	9,369.09	1,011,946.54	108.01
2014	April	7,997.81	885,490.84	110.72
2014	May	7,423.80	831,885.34	112.06
2014	June	5,074.98	578,327.80	113.96
2014	July	6,923.64	753,042.80	108.76
2014	August	4,624.39	470,943.16	101.84
2014	September	6,202.54	600,487.69	96.81
2014	October	4,150.55	364,341.96	87.78
2014	November	6,128.96	475,155.33	77.53
2014	December	4,066.67	212,838.84	52.34
2015	January	6,647.33	323,425.51	48.65
2015	February	6,539.23	361,897.55	55.34
2015	March	6,071.58	340,227.16	56.04
2015	April	5,119.91	306,598.47	59.88
2015	May	3,940.97	259,160.16	65.76
2015	June	5,022.43	307,749.64	61.28
2015	July	1,918.72	108,916.80	56.77
2015	August	3,393.90	160,582.39	47.31
2015	September	6,927.58	325,281.54	46.95
2015	October	6,169.00	305,856.05	49.58
2015	November	3,730.56	161,895.26	43.40
2015	December	5,176.53	202,093.98	39.04

**Source: Validated 2015 COMD Sales profile and 2014 NEITI Oil & Gas Audit Report**

Below is the graphical representation of the federation crude oil monthly average selling price for 2014 and 2015:

**Figure 5.1.**  
**Summary Analysis of federation crude oil monthly average selling price (\$) per barrel for 2014 and 2015**



*Source: 2015 Monthly Analysis of Export Crude Oil Sales Value and Volume*

- Pricing methodology was consistently applied on the export crude sales except for a case leading to a revenue loss of **\$735.724 thousand** (See **Appendix 1- Schedule of pricing shortfall- Export Crude**).

Further audit inquiry indicated that, in relation to Dans Global on Ebok lifting vis-à-vis the valuation available, the unit price was **\$53.776**. The BL quantity of the cargo was **624,189 barrels**. Therefore the total value based on this presentation is **\$33, 566, 387.66**. However, the company had remitted **\$32,830,731.98** to the Federation account at an outturn quantity of **610,609 barrels** acting based on the outrun report<sup>3</sup> from the independent inspectors and the GMD approval to use net outturn volumes. COMD thereafter issued a valuation after receiving DPR position on the outturn.

<sup>3</sup> Detailed report prepared by the discharging terminal to record discrepancies in the form of over, short and damaged cargo as manifested and cargo checked at a time and place of discharge from ship.

b. For federation domestic crude:

**Audit findings/ observation:**

- **153.24 million barrels** of domestic crude oil was sold in 2015 and NNPC delivered 37% to PPMC as unprocessed crude being exported; 57% as offshore processing; and 6% as Refineries deliveries. NNPC treated this as 100% Sales to itself- hence acting as both Seller and Buyer of the Federation Crude.
- NNPC is expected to pay for domestic crude lifted into CBN- Crude Oil & Gas Revenue – Naira Account.
- On monthly basis, NNPC transfers into the bank account a lump sum which CBN typically described as *“Multi Credit Entry - Transfer of NNPC Fund from pool account to Oil & Gas Account”*.
- On aggregate, the total dollar equivalent for the year under review was **\$7.775 billion (i.e. N1.505 trillion)** based on exchange rate of **N167** in January, **N195.58** in February (as against **N197 CBN buying rate**), **N196** in March to June, **N195.95** in July (as against **N196 CBN buying rate**), **N196** in August, **N196** in September, **N195.95** in October (as against **N195.98 CBN buying rate**), **N196** in November and **N195.97** in December (as against **N196 CBN buying rate**).
- All transfers into CBN NNPC Domestic Crude Oil Revenue (Naira) Account are made net of Crude & Product oil losses, pipeline repairs & maintenance; and subsidy deduction. **N60.997 billion** accounted for “Crude and Product Oil losses”; **N112.818 billion** accounted for “Pipeline repairs & maintenance”; and **N316.721 billion** accounted for “Subsidy deduction”.
- At the point of remittance into the CBN-NNPC domestic crude oil (Naira) accounts by NNPC, NNPC based remittance on another valuation report using a revised pricing option which is usually lower than the initial valuation.

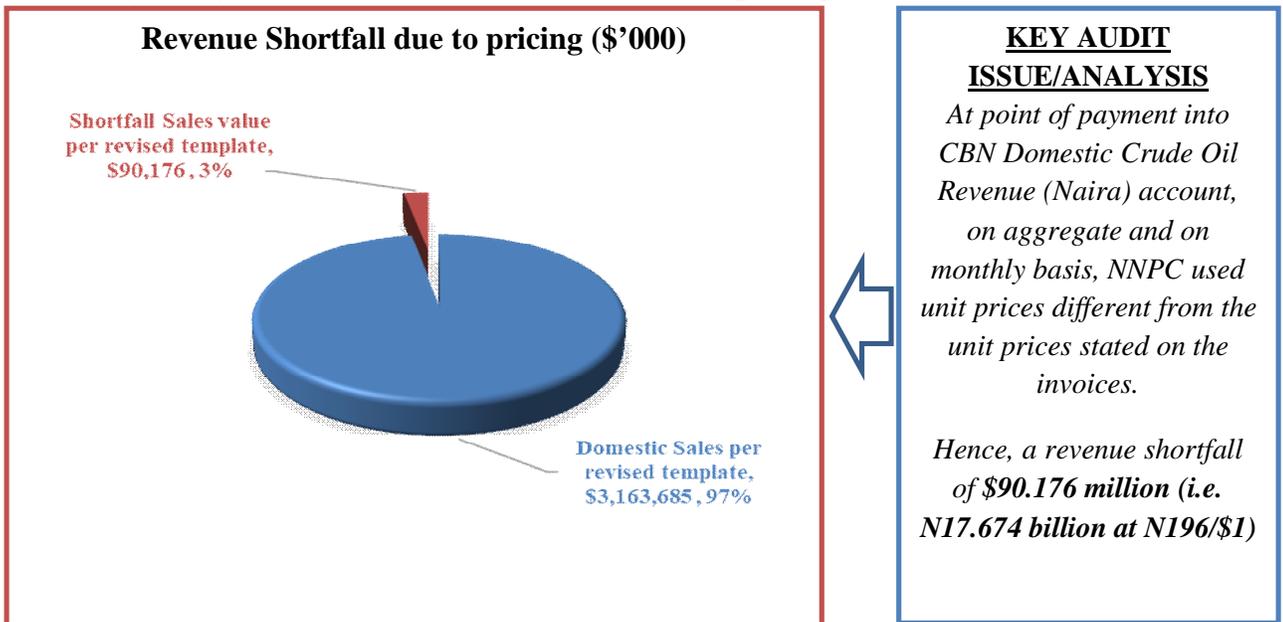
**Implications:**

Based on the foregoing audit findings and observations;

- Inconsistent application of CBN exchange rate, considering the fact NNPC do not convert on the date of invoice but aggregate all Dollar invoices for the month and convert using “one” exchange rate, led to under payment of **N4.024 million** (*See Appendix 3- Schedule of converting aggregated monthly dollar invoices into naira*).
- Pricing methodology was not consistently applied leading to a revenue loss of **\$90.176 million** (*See Appendix 2- Schedule of pricing shortfall- Domestic Crude*). Therefore, Nigeria did not succeed / failed in realizing revenues from crude sales in a manner consistent with market conditions with respect to sales to NNPC and its subsidiaries.

**Below is the graphical representation of the revenue loss:**

**Figure 5.1.**  
**Summary Analysis of shortfall in Domestic Crude oil pricing**



From the foregoing, **\$3,253,860,271.08** accounted for sales per validated sample sales invoices- this reflect actual BL dates, Unit price based on the pricing option elected by the Customer, expected date of payment and respective NNPC customers. However, at the point of payment by NNPC, instead of NNPC to rely on the unit price based on the pricing option elected by the customer ‘as stated’ on the invoice, NNPC revised the unit price based on “market privilege” – i.e. remitting **\$3,163,684,506.02** using the lowest of the initial pricing option as basis of remittance into the CBN NNPC Domestic Crude Oil (Naira) Account.

NNPC retains the margin between the initial unit price based on the pricing option elected by the customer and the revised price based on “market privilege”. The margin aggregated to **\$90.176 million** (i.e. **\$3,253,860,271.08** less **\$3,163,684,506.02**).

**Recommendations:**

- NEITI should follow-up during the 2016 audit year to confirm that NNPC actually stopped the double valuation practice.

**NNPC Response:**

NNPC confirmed this practice of using double valuation report vis-à-vis retaining margin. However, it has stopped in the subsequent audit cycle – i.e. with effect from 2016 NEITI audit year. (*See Appendix 4 - Management response to the audit inquiry*).