JOINT MEMORANDUM TO PARLIAMENT

BY

HON. JOHN PETER AMEWU
(MINISTER FOR ENERGY)

AND

HON. KEN OFORI-ATTA
(MINISTER FOR FINANCE)

ON THE

AMENDMENT TO THE PETROLEUM AGREEMENT

AMONG

THE GOVERNMENT OF GHANA,

GHANA NATIONAL PETROLEUM CORPORATION,

GNPC EXPLORATION AND PRODUCTION COMPANY

LIMITED AND

AGM PETROLEUM GHANA LIMITED.

31st APRIL, 2019
1.0 DECISION REQUIRED

2.0 BACKGROUND
The South Deepwater Tano Petroleum Agreement (SDWT PA) dated 10th September, 2013, was executed among the Government of Ghana (State), Ghana National Petroleum Corporation (GNPC), GNPC Exploration and Production Company Limited (Explorco) and AGM Petroleum Ghana Limited (AGM) and ratified on 4th December, 2013 and became effective on 24th January, 2014. The Operator for the SDWT PA is a joint operating company established by AGM and Explorco.

Following the suit filed by Ghana against Cote D'Ivoire for the delimitation of the maritime boundary and the subsequent provisions measures order given by the Special Tribunal of the International Tribunal of the Law of the Sea, planned exploration activities in the SDWT Block had to be put on hold for the pendency of the arbitral process given the fact that almost eighty percent of the block fell within the disputed area. The final decision of the Special Tribunal in favour of Ghana on 30th September, 2017 paved the way for the restart of exploration activities within the block.

3.0 KEY HIGHLIGHTS OF EXISTING SDWT PA
Key terms of the existing SDWT PA are summarized below as follows:

3.1 Contractor
At the time of ratification of the SDWT PA, Contractor Parties were AGM (then owned by AGR Energy (49.5%) Minexco Limited - 48% and an indigenous Ghanaian Company, MED Songhai Developers 2.5 %) and Explorco which held a commercial interest of 24%.

3.2 Contract Area
The Contract Area lies within the Offshore Tano Basin, and is located south of the Deep Water Tano Cape Three Points Block and covers an area of 3,482 square kilometres.

3.3 Fiscal and Financial Terms

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Royalty-Oil</td>
<td>10%</td>
</tr>
<tr>
<td>Royalty-Domestic Gas</td>
<td>5%</td>
</tr>
<tr>
<td>Royalty - Export Gas</td>
<td>10%</td>
</tr>
<tr>
<td>GNPC Initial Interest</td>
<td>10%</td>
</tr>
<tr>
<td>GNPC Additional Interest</td>
<td>15%</td>
</tr>
<tr>
<td>Corporate Income Tax</td>
<td>35%</td>
</tr>
</tbody>
</table>
3.5 Additional Oil Entitlement
The State under the existing regime expects to receive Additional Oil Entitlement upon the attainment of agreed rates of return as follows:

<table>
<thead>
<tr>
<th>Rate of Return (RoR)</th>
<th>Additional Oil Entitlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.5% &lt; RoR</td>
<td>0%</td>
</tr>
<tr>
<td>17.5 %&lt; RoR ≥ 12.5%</td>
<td>10%</td>
</tr>
<tr>
<td>22.5% &lt; RoR ≥ 17.5%</td>
<td>12.50%</td>
</tr>
<tr>
<td>27.5% &lt; RoR ≥ 22.5%</td>
<td>20.00%</td>
</tr>
<tr>
<td>RoR ≥ 27.5</td>
<td>30%</td>
</tr>
</tbody>
</table>

3.6 WORK PROGRAMME

Initial Exploration Period - 3.5 years
- Acquire, process and interpret 750 square kilometers of 3D seismic.
- Drill a minimum of 2 exploration wells
- Minimum Expenditure for work in Initial Exploration period is **US$259,000,000**.

First Extension Period -1.5 years
- Reprocess existing data where required
- Drill 1 Exploration Well.
- Minimum Expenditure **US$126,000,000**.

Second Extension Period-2 years
- Reprocess existing data where required.
- Drill a minimum of 1 Exploration Well.
- Minimum Expenditure of **US$126,000,000**.

4.0 RECENT DEVELOPMENTS

In 2018, Petrica Holding AS acquired all issued shares in the parent company of AGM. This transfer occurred about the same time Aker Energy, a subsidiary of Petrica, also took over the adjacent Deep Water Tano Cape Three Points (DWTCTP) Block from Hess Ghana Limited. As such, Aker Energy and AGM have indicated their plans of embarking on an integrated development of both the SDWT Block (DWTCTP) and the DWTCTP Block in order to maximize resource recovery which will be of mutual benefit to both the State and Contractors in the respective blocks.
AGM thereafter requested for a review of the terms of the SDWT PA, pursuant to Section 20 of the Petroleum (Exploration and Production) Act, 2016, Act 919 to enable them accelerate and augment exploration activities in the SDWT Block, and also based on a more comprehensive development approach and more attractive fiscal terms, comparable to those given to ExxonMobil.

### 5.0 RENEGOTIATED TERMS OF THE SDWT PA

The new terms agreed between the parties are as stated below:

<table>
<thead>
<tr>
<th>Proposed Changes to AGM PA</th>
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</thead>
<tbody>
<tr>
<td><strong>Ownership</strong></td>
</tr>
<tr>
<td>1. GNPC Carried Interest</td>
</tr>
<tr>
<td>2. Explorco Stake</td>
</tr>
<tr>
<td>3. GNPC Additional Interest</td>
</tr>
<tr>
<td>4. Local Content Partner</td>
</tr>
<tr>
<td>5. Operator</td>
</tr>
</tbody>
</table>

#### 5.1 Proposed Additional Oil Entitlement Thresholds

<table>
<thead>
<tr>
<th>Rate of Return (RoR)</th>
<th>Additional Oil Entitlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>15% &lt; RoR</td>
<td>0%</td>
</tr>
<tr>
<td>20% &lt; RoR ≥ 15%</td>
<td>10%</td>
</tr>
<tr>
<td>25% &lt; RoR ≥ 20%</td>
<td>15%</td>
</tr>
<tr>
<td>30% &lt; RoR ≥ 25</td>
<td>20%</td>
</tr>
<tr>
<td>RoR ≥ 30%</td>
<td>25%</td>
</tr>
</tbody>
</table>

### 6.0 NEW MINIMUM WORK PROGRAMME

In the Initial Exploration Period, AGM has committed to drilling a minimum of three Exploration Wells, increasing the number of Exploration Wells agreed under the existing agreement.

### 7.0 JUSTIFICATION FOR GOVERNMENT ACTION

The review of these key terms has afforded Government the opportunity to align the existing fiscal terms in the SDWT PA to legislation passed after the ratification of the SDWT PA. With this review, the requirement of having 5% equity participation by an Indigenous Ghanaian Company in the Block as is stipulated in Regulation 4 (2) of the Petroleum (Local Content and
Local Participation) Regulations, 2013 has been met, an improvement from the previous local Ghanaian participation in the block which was 2.5%.

Also, the ten percent (10%) initial participating interest held by GNPC has been increased to fifteen percent (15%) for exploration and development, with an option to acquire an additional participating interest of three percent (3%) following the declaration of commercial discovery.

Another significant improvement from the review is the increase in thresholds for Additional Oil calculations, in line with the thresholds set by the Petroleum (Exploration and Production) (General) Regulations, 2018 LI 2359.

Having regard to the high costs and risk associated with ultra-deep water development, steps have been taken to reduce GNPC’s current exposure, including Explorco’s commercial interest.

In order to accelerate exploration activities this year, AGM intends to increase the number of wells to be drilled in this phase from two wells to a minimum of three wells, an increase from its minimum work obligation for this period. With such investments and increased activity, the potential to make a discovery and increase oil production is higher, which will culminate into more sub-contracts and jobs for Ghanaians as well as increase the national oil and gas reserves, hence, the revenues to be derived by the State.

8.0 TAX INCENTIVES

In order to incentivise the increased investment and escalation in exploration activities proposed by AGM to improve the fiscal terms in line with that of ExxonMobil, the following tax incentives have been proposed to include the following:

i. Withholding Tax

It is recommended that AGM be exempted from withholding any amount in respect of tax from any sum due from them to their Subcontractors, save for withholding tax at the rate of five percent (5%). However, withholding tax in respect of services provided by an Affiliate shall be waived if such services are proven to be charged at cost.

ii. Tax Credit

It is recommended that AGM be granted an investment tax credit to be set off against withholding tax on dividends distributed to its shareholders up to a limit of $460 million per discovery or field. The credit will be based on a recovery of up to 500 million barrels per discovery or a cumulative total of 2.5 million barrels over five (5) discoveries. The investment credit is subject to the achievement of an agreed recovery rate above the industry average as indicated in the Plan of Development.
iii. Loss Carry-Forward

It is also recommended that AGM be allowed to carry forward up to the 10th year, any residual loss that remains un-deducted after the five-year period imposed by the Income Tax Act, 2015, Act 896.

iv. Provisions of the Income Tax Act, 2015, Act 896 will apply where there is a change in underlying ownership save for transactions involving internal restructuring or the issuance of an Initial Public Offering or subsequent trading of these shares.

9.0 ECONOMIC IMPACT

- Accelerated rate of discoveries resulting in increase in oil production, leading to increased revenue for Government.
- Creation of jobs both directly and indirectly.
- Improvement of the competence level of the workforce of the country through skills training and technology transfer etc.
- Promotion of industrial development, especially small and medium scale enterprises which should help reduce poverty.

10.0 INTER MINISTERIAL CONSULTATIONS

The Minister for Energy, constituted a Government of Ghana Negotiating Team made up of representatives from the Ministry of Energy, Ministry of Finance, GNPC, Office of Attorney General and Minister for Justice and Ghana Revenue Authority to renegotiate the key commercial and technical elements of the SDWT PA. These negotiations were held within the framework of the Petroleum (Exploration and Production) Act, 2016, Act 919, the Petroleum (Exploration and Production) Regulations, 2018 LI2359, the Income Tax Act, 2015, Act 896, Petroleum (Local Content and Local Participation) Regulations, 2013 LI. 2204 and the existing SDWT PA.

11.0 CABINET APPROVAL

By a letter referenced OPC3/3/260419 and dated 26th April, 2019 (copy attached), Cabinet granted approval for the proposed Amendments to the SDWT PA, as attached hereto as Amendment No. 1.
12.0 RECOMMENDATION AND CONCLUSION

Considering the benefits to be derived from the renegotiated terms, including a thorough exploration of the area by the drilling of a minimum of three wells, increased investment, as well as the expected acceleration in transfer and technology and expertise through the engagement of Ghanaians in furtherance of the national agenda to develop the oil and gas industry, Honourable Members of Parliament are respectfully requested to consider and approve Amendment No. 1 to the SDWT PA as per paragraph 1.0 above.

HON. JOHN PETER AMEWU
MINISTER FOR ENERGY

DATE: 29th APRIL 2019

HON. KEN OFORI-ATTA
MINISTER FOR FINANCE

DATE: 29th APRIL 2019
AMENDMENT TO THE PETROLEUM AGREEMENT AMONG
THE GOVERNMENT OF GHANA, GHANA NATIONAL PETROLEUM CORPORATION,
GNPC EXPLORATION AND PRODUCTION COMPANY LIMITED AND
AGM PETROLEUM GHANA LIMITED

Cabinet at its Fifty-second meeting held on Thursday, 25th April, 2019 considered a Memorandum on the above-mentioned subject submitted jointly by the Ministers for Energy and Finance.


3. Cabinet approved the Memorandum for the consideration of Parliament.

4. I should be grateful if you could take requisite action on the decision by Cabinet.

MERCY DEBRAH-KARIKARI
SECRETARY TO THE CABINET

THE HON. MINISTER FOR ENERGY

THE HON. MINISTER FOR FINANCE

cc: Chief of Staff
    Secretary to the President
    Secretary to the Vice President
    Hon. Minister for Parliamentary Affairs
AMENDMENT NO. 1
TO
PETROLEUM AGREEMENT
AMONG
GOVERNMENT OF THE REPUBLIC OF GHANA

GHANA NATIONAL PETROLEUM CORPORATION

GNPC EXPLORATION AND PRODUCTION COMPANY LIMITED
AND
AGM PETROLEUM GHANA LTD.

IN RESPECT OF
SOUTH DEEPWATER TANO CONTRACT AREA

DATED 10th SEPTEMBER 2013
THIS AMENDMENT NO. 1 TO THE PETROLEUM AGREEMENT made this 30th day of April 2019 by and among:

(1) THE GOVERNMENT OF THE REPUBLIC OF GHANA (hereinafter referred to as the “State”), represented by the Minister for Energy (hereinafter referred to as the “Minister”);

(2) THE GHANA NATIONAL PETROLEUM CORPORATION, a public corporation established by the Ghana National Petroleum Corporation Law, 1983 PNDCL 64 (hereinafter referred to as “GNPC”);

(3) AGM PETROLEUM GHANA LTD a company incorporated in Ghana and having its registered office at Number 6, 4th Norla Street, Labone Accra, Ghana (hereinafter referred to as “AGM Ghana”).

(4) QUAD ENERGY LIMITED a company incorporated in Ghana having its registered office at 3 Emmause 2nd Close Labone, Accra. (hereinafter referred to as “QUAD ENERGY”)

Each of the State, GNPC and AGM Ghana are referred to as a “Party” and collectively the “Parties”

WITNESSES THAT:

1. The Parties and GNPC Exploration and Production Company on the 10th September 2013 entered into a Petroleum Agreement for the exploration, development and production of petroleum resources in the South Deepwater Tano Block (the “Petroleum Agreement”).

2. The Parties in view of the material changes in the circumstances that prevailed at the time the Petroleum Agreement was executed have agreed to review the terms of this Petroleum Agreement.

3. As part of the review, Explorco has agreed to transfer its twenty-four percent (24%) Participating Interest in the Petroleum Agreement to AGM.

4. Pursuant to Regulation 4 (2) of the Petroleum (Local Content and Local Participation) Regulation 2013, LI2204, Quad Energy Limited has acquired five percent (5%) interest in the Petroleum Agreement.

5. The Parties have therefore agreed to make the changes agreed herein to the Petroleum Agreement.

NOW THEREFORE, in consideration of the mutual covenants herein contained, it is hereby agreed and declared as follows:

1. RECITALS

Recital 9 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following provision:
9. GNPC has aspirations of building operatorship capacity. Without prejudice to the rights of the Parties under this Agreement, Contractor is committed, pursuant to the terms of this Agreement, to support GNPC to develop its institutional capacity to enable the State to fulfil such aspirations.

2. ARTICLE 1- DEFINITIONS AND INTERPRETATIONS

a. Article 1.3: “Affiliate” of the Petroleum Agreement shall be deleted and replaced in its entirety by the following definition:

1.3 “Affiliate” means any person, whether a natural person, corporation, partnership, unincorporated association or other entity, which directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with a Party. For this purpose, “control” means the direct or indirect ownership of in aggregate of fifty percent (50%) or more of voting capital or voting rights of the entitlement (directly or indirectly) to appoint a majority of the directors or equivalent management body of, or to direct the policies or operations of the other entity;

b. A new definition “Aker Energy” is inserted in the Petroleum Agreement as new Article 1.5 and the following clauses change numbering accordingly:

1.5 “Aker Energy” means Aker Energy AS, a private limited liability company registered in Norway with organisational number 920 243 754 and registered company address Oksenøyveien 10, 1366 Lysaker, Bærum, Norway.

c. Former Article 1.5 “AOE” of the Petroleum Agreement is now number 1.6 and the following clauses change numbering accordingly.

d. Former Article 1.22 “Contractor” of the Petroleum Agreement shall be deleted and replaced in its entirety by the following definition:

1.22 “Contractor” means, collectively AGM Ghana and Quad Energy and their respective permitted successor and assigns, individually a Contractor Party as the context may require.

e. Former Article 1.23: “Contractor Services Arrangement” shall be deleted as it is no longer required under the current arrangements.

f. Former Article 1.24 “Crude Oil” shall be deleted and replaced in its entirety by the following definition:

1.24 “Crude Oil” means hydrocarbons which are liquid at fourteen and sixty-five one-hundredths pounds per square inch at atmospheric (14.65 psia) pressure and sixty (60) degrees Fahrenheit and includes condensates and distillates obtained from Natural Gas;

g. A new definition “Initial Restructuring” is inserted in the Petroleum Agreement as new Article 1.56:
1.56 "Initial Restructuring" means a transaction that occurs on or before the date falling 6 months after the date of execution of the Amendment No. 1 and that has the effect of transforming the silent partnership Petrica Holding AS, established in accordance with the Norwegian Partnership Act (Act 21.06.1985 No. 83) between Petrica Holding AS and TRG, into a Norwegian limited company, established in accordance with the Norwegian Limited Companies Act (Act 13.06.1997 No. 44) and the transfer of shares in AGM Ghana effected by such transformation. The transformation will be carried out with tax continuity according to Norwegian tax rules.

h. Article 1.58: Joint Operating Agreement" or "JOA" shall be deleted and replaced in its entirety by the following definition:

1.58 "Joint Operating Agreement" or "JOA" means the joint operating agreement among all of the Contractor Parties with respect to the Contract Area as amended or supplemented from time to time.

i. A new definition "Subsequent Restructuring" is inserted in the Petroleum Agreement as Article 1.93:

1.93 "Subsequent Restructuring" means a transaction that is reflected in final and conclusive agreements entered into, on or before the date falling 12 months after the date of execution of the Amendment No. 1, subject to obtaining the necessary approvals from both European and Ghanaian authorities in a timely manner, and that has the effect of a direct or indirect change in underlying ownership to a Contractor Party, an Affiliate or interest in this Agreement by an assignment, sale, transaction, or other transfer (including by merger or demerger) to, with or between an Affiliate, Aker Energy or any of its successors or Affiliates.

j. The former Article 1.91 "Termination" of the Petroleum Agreement is now number 1.94 and the following clauses change numbering accordingly.

k. Article 1.92 "Work Programme" of the Petroleum Agreement is now number 1.96 and the following clauses change numbering accordingly.

3. ARTICLE 2 - SCOPE OF THE AGREEMENT, INTERESTS OF THE PARTIES AND CONTRACT AREA

a. Article 2.4 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

2.4 GNPC shall, have a fifteen percent (15%) Initial Interest in all Petroleum Operations under this Agreement. With respect to all Exploration and Development Operations GNPC’s Initial Interest shall be a Carried Interest. With respect to all Production Operations GNPC’s Initial Interest shall be a Paying Interest.
b. Article 2.5 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

2.5 In addition to the Initial Interest provided for in Article 2.4, GNPC shall have the option in respect of each Development and Production Area to acquire an additional interest of up to three percent (3%) in the Petroleum Operations in such Development and Production Area ("Additional Interest"), by contributing an equal percentage of all the Development and Production Costs incurred after the Date of Commercial Discovery in respect of such Development and Production Area (or make arrangements satisfactory to Contractor to that effect). GNPC shall notify Contractor of the exercise of its option to acquire an Additional Interest within ninety (90) days of the Date of Commercial Discovery. Contractor shall provide to GNPC within seven (7) days of the Date of Commercial Discovery notice detailing Contractor’s calculation of the Contractor Third Party Rate (as defined below).

c. Article 2.7 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

2.7 For the avoidance of doubt GNPC shall only be liable to contribute to Petroleum Costs:

(a) incurred in respect of Development Operations in any Development and Production Area and to the extent only of any Additional Interest acquired in such Development and Production Area under Article 2.5; and

(b) incurred in respect of Production Operations in any Development and Production Area both to the extent of:

(i) its Initial Interest; and

(ii) any Additional Interest acquired in such Development and Production Area under Article 2.5.

d. Article 2.10 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

2.10 Contractor’s Participating Interest in all Petroleum Operations and in all rights under this Agreement shall be eighty-five percent (85%) of the total interest under this Agreement, reduced proportionately on each Party pro rata to its Participating Interest, at any given time and in any given part of the Contract Area by the Additional Interest of GNPC pursuant to Article 2.5 or the Sole Risk Interest of GNPC pursuant to Article 9.
3. ARTICLE 10 - SHARING OF CRUDE OIL

a. Article 10.2 sub-paragraph (b) and (c) of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

(b) Formulae:

\[ FA_n = \left( FA_{n-1} \left( 1+ \frac{(0.15 + i)}{12} \right) \right) + NCF \]

\[ SA_n = \left( SA_{n-1} \left( 1+ \frac{(0.20 + i)}{12} \right) \right) + NCF \]

In the calculation of SA(n) an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to FA(n).

\[ TA_n = \left( TA_{n-1} \left( 1+ \frac{(0.25 + i)}{12} \right) \right) + NCF \]

In the calculation of TA(n) an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to FA(n) and SA(n).

\[ ZA_n = \left( ZA_{n-1} \left( 1+ \frac{(0.30 + i)}{12} \right) \right) + NCF \]

In the calculation of ZA(n) an amount shall be subtracted from NCF identical to the value of any AOE which would be due to the State if reference were made hereunder only to FA(n), SA(n) and TA(n).

(c) Prospective Application:

The State’s AOE measured in Barrels of Crude Oil will be as follows:

(i) If FA(n), SA(n), TA(n) and ZA(n) are all negative, the State’s AOE for the Month in question shall be zero;

(ii) If FA(n) is positive and SA(n), TA(n) and ZA(n) are all negative, the State’s AOE for the Month in question shall be equal to the absolute amount resulting from the following monetary calculation:

Ten percent (10%) of the FA(n) for that Month divided by the Market Price as determined in accordance with Article 11.7.
(iii) If both FAn and SAn are positive, but TAn and ZAn are negative, the State's AOE for the Month in question shall be equal to an absolute amount resulting from the following monetary calculation:

the aggregate of ten percent (10%) of FAn for that Month plus fifteen percent (15%) of the SAn for that Month all divided by the Market Price as determined in accordance with Article 11.7.

(iv) If FAn, SAn and TAn are all positive but ZAn is negative, the State's AOE for the Month in question shall be equal to the absolute amount resulting from the following monetary calculation:

the aggregate of ten percent (10%) of the FAn for that Month plus fifteen percent (15%) of the SAn for that Month plus twenty percent (20%) of the TAn for that Month all divided by the Market Price as determined in accordance with Article 11.7.

(v) If FAn, SAn, TAn and ZAn are all positive, the State's AOE for the Month in question shall be equal to the absolute amount resulting from the following monetary calculation:

the aggregate of ten percent (10%) of the FAn for that Month plus fifteen percent (15%) of the SAn for that Month plus twenty percent (20%) of the TAn for that Month plus twenty five percent (25%) of the ZAn for that Month all divided by the Market Price as determined in accordance with Article 11.7.

4. ARTICLE 12 - TAXATION AND OTHER IMPOSTS

a. Article 12.1 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following:

12.1 Contractor, its Subcontractors or its Affiliates and shareholders shall be exclusively subject to the following taxes, duties, fees, and other imposts that shall be imposed by the State or any entity or any political subdivision of the State in respect of work and services related to Petroleum Operations and the sale and export of Petroleum shall be as follows:

Article 12.1 (a) and (b) of the Petroleum Agreement shall be deleted and replaced by the following:

a. Royalty as provided for in Article 10.1(a) and Article 14.15(a);

b. Additional Oil Entitlement as provided for in Article 10(2);
c. Taxes in accordance with the Income Tax Act, 2015 (Act 896), unless specifically excepted or specified in this Article 12, and Petroleum income tax under the Income Tax Act, which shall be levied at the rate of thirty-five percent (35%).

d. Contractor shall not be obliged to withhold any amount in respect of tax from any sum due from Contractor to any Subcontractor in respect of work and services or the supply or use of goods for and in connection with this Agreement save for withholding tax at the rate of five percent (5%). Notwithstanding the foregoing, no withholding tax shall be required in respect of services provided to Contractor by an Affiliate, provided that such services are charged at cost.

e. Subject to the provision of this sub-paragraph gains/profit arising from direct and indirect sale, transfer, disposal, or assignment of any interest in this Agreement and sale of assets to any person shall be subject to tax in accordance with the Income Tax Act. Notwithstanding the preceding sentence, any gain/profit, remuneration or payment, contingent or otherwise, derived or arising from the following transactions (including any stamping of documents related thereto) shall be exempted from all taxes, duties, fees and other imposts of any kind:

   (i) the Initial Restructuring or a Subsequent Restructuring;

   (ii) the direct or indirect change in underlying ownership of a Contractor Party, an Affiliate or interest in this Agreement by an assignment, sale, transaction, or other transfer (including by merger or demerger) to or with an Affiliate or between Affiliates;

   (iii) the issuance, transfer, transaction or sale of shares or other equity instruments conducted in relation or in preparation to a public offering (to group of investors through a private placement or the issue of shares to the public market or markets or an offering made available on the Ghana Stock Exchange) of a Contractor Party or an Affiliate;

   (iv) the issuance of shares or other equity instruments of a Contractor Party or an Affiliate;

   (v) the transfer, sale or other transaction of shares or other equity instruments (including merger or demerger), of a Contractor Party or an Affiliate against a settlement in shares, or a combination of cash and shares where the cash element is less than 50% of the total remuneration, in an entity that is or becomes an Affiliate through the transaction (including merger or demerger);

   (vi) direct or indirect change of underlying ownership of a Contractor Party or an Affiliate listed on a public trading platform; other than;

        1) sales by an individual seller or group of sellers acting in consortium of 50.1% or more of the shares of the Contractor Party or the Affiliate listed on a public trading platform settled in cash;
2) sales by an individual seller or group of sellers acting in consortium of 50.1% or more of the shares of a Contractor Party or an Affiliate (other than an IGC) listed on a public trading platform over a period of 4 years (measured as % of total shares outstanding in the listed entity at the time of the first sale in the relevant 4-year period) settled in cash;

(vii) assignment, transfer, transaction or sale of shares to an IGC, GNPC or any other government owned entity; or

(viii) any transfer, sale or other transaction of shares or other equity instruments directly or indirectly of a Contractor Party or an Affiliate made to a direct heir, to a company controlled by one or more direct heirs or to a charitable foundation.

f. In the event of a transaction or a series of transactions taxable as per Article 12.1 (e) to which Section 62 (1) of the Income Tax Act applies in ascertaining the chargeable income of Contractor, an amount resulting from a deemed realisation under Section 62 (1) shall not include a deemed realisation of a petroleum right where section 69 (2) has already been applied or will be applied to that or these transactions.

g. Contractor shall be subject to Thin Capitalization as provided under the Income Tax Act 2015, Act 896, and be allowed a debt-to-equity ratio of three-to-one (3:1) during the term of the Agreement, or such higher ratio allowed by law.

b. Article 12.1 sub-paragraph (c) and (d) of the Petroleum Agreement shall be renumbered Article 12.1 sub-paragraph (h) and (i).

c. Article 12.2 of the Petroleum Agreement shall be deleted and replaced by the following:

12.2 Losses incurred from Petroleum Operations shall be carried forward for five (5) years but where there is any residual at the end of that period, the residue can be carried forward for another five (5) years.

d. Article 12.4 of the Petroleum Agreement shall be deleted and replaced by the following:

12.4 Contractor shall not be liable to pay VAT in respect of plant, equipment and materials, and related services supplied in Ghana, to be used solely and exclusively in the conduct of Petroleum Operations. Contractor shall be granted a VAT Relief Purchase Order (VRPO), or any similar relief instrument.

e. Article 12.8 of the Petroleum Agreement shall be deleted and replaced by the following:

12.8 The Ghana Income Tax law applicable generally to individuals who are not employed in the petroleum industry shall apply in the same fashion and at the
same rates to employees, of Contractor, its Affiliates and its Subcontractors, provided, however, that Foreign National Employees of Contractor, its Affiliates, and its Subcontractors who are present in Ghana for not more than thirty (30) consecutive days or one hundred and eighty three (183) days in aggregate in any Calendar Year shall be exempt from income tax and withholding tax liabilities.

f. Article 12.9 of the Petroleum Agreement shall be deleted and replaced by the following:

12.9 Contractor is granted an investment tax credit for each Discovery included in a Development Plan with a Target Recovery Factor above the Reference Recovery Factor (each a "Tax Credit"). The Tax Credit shall be in the amount of USD 460 million for each Discovery and each field, adjusted as per Annex 5.

The Tax Credit(s) may be used at any time after the first Date of Commercial Discovery to offset, on a dollar-by-dollar basis, any withholding tax on dividends and distributions. The Tax Credit(s) shall be allocated pro rata between the Contractor Parties. Any unutilized part of the Tax Credit(s) can be assigned together with an interest in the Agreement.

The determination of the Target Recovery Factor and the Reference Recovery Factor and the adjustment of the Tax Credit(s) based on recoverable volumes of oil and oil equivalents from each Discovery or field shall be as set out in Annex 5.

5. ARTICLE 21 - EMPLOYMENT AND TRAINING

a. Article 21.2 through Article 21.4 of the Petroleum Agreement are deleted.

b. The following text shall be included as a new Article 21.2:

21.2 Contractor will assist GNPC in their aspiration to build operatorship capacity through contractual arrangements with GNPC that will enable competence building in an operational environment.

c. Article 21.5 of the Petroleum Agreement is now number 21.3. The following clauses change numbering accordingly.

6. ARTICLE 25 - ASSIGNMENT

a. Article 25.3 sub-paragraph (b) shall be deleted and sub-paragraph (c) and (d) renumbered accordingly.

b. The following text shall be included as a new Article 25.6 of the Petroleum Agreement:
25.6 Notwithstanding Article 25 of the Agreement or applicable law:

i. the written approval of GNPC and the Minister for the direct or indirect transfer of an interest in this Agreement or the direct or indirect transfer of shares in a Contractor Party shall only be required upon a change of control in a Contractor Party.

ii. GNPC’s right of pre-emption to acquire the interest of Contractor shall not apply to any restructuring, transfer, transaction, sale, share issue, amalgamation, merger, demerger or other direct or indirect change of ownership or interest in the Agreement as set out in Article 12.1 (e) subparagraph (i) through (viii) above or to any transfer, transaction, sale, share issue, amalgamation, merger, demerger of any shares listed on a public trading platform or to or with a listed company.

7. ARTICLE 26 - MISCELLANEOUS

a. Article 26.3 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

26.3 Without prejudice to the rights and obligations of the parties under the Agreement, in the event that after the Effective Date any applicable Law, Rule, Decree, or Regulation of the Republic of Ghana is made or amended (or there are changes in interpretation or application of any applicable law, rule, decree or regulation, that makes further observance of the original terms and conditions of this Agreement impossible or that has a material adverse effect on the rights, obligations and benefits of Contractor under this Agreement, or otherwise materially affects the economic, fiscal and financial balance of this Agreement, the Parties shall, if a Party so requests, meet as soon as possible to negotiate, in good faith, possible modifications to the Agreement as may be appropriate to restore the economic, fiscal and financial balance of this Agreement; provided that, at a minimum, to the extent Contractor’s rights, obligations or benefits (including the economic, fiscal and financial balance) which existed at the time the Agreement was executed by all Parties, cannot be restored, even though the Parties have agreed to modify the Agreement, the State shall indemnify Contractor for the adverse effect on the Contractor’s rights, obligations or benefits (including the economic, fiscal and financial balance) through financial compensation or other means acceptable to Contractor.

b. Article 26.4 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

26.4 Should the Parties be unable to agree on a mechanism to restore the economic, fiscal and financial balance pursuant to Article 26.3 within thirty (30) days from the date on which the notice above was received (or such longer period as may be agreed by the Parties), then any Party may refer the matter to arbitration pursuant to Article 24 of this Agreement, and the arbitration panel so appointed...
shall determine (a) whether the claimed change or adverse effect has occurred and (b) if so be directed to order such remedies, including damages or modifications to the Agreement, in order to restore the economical, fiscal and financial balance of the Agreement as at the Effective Date.

8. ARTICLE 27 - NOTICE

a. Article 27 of the Petroleum Agreement shall be deleted and replaced in its entirety by the following terms:

27. Any notice, application, requests, agreements, consent, approval, instruction, delegation, waiver or other communication required or permitted to be given hereunder shall be in writing and shall be deemed to have been properly given when delivered in person to an authorised representative of the Party to whom such notice is directed or when actually received by such Party through registered mail, telex or telegram at the following address or at such other address as the Party shall specify in writing fifteen (15) days in advance:

FOR THE STATE:

MINISTER FOR ENERGY
MINISTRY OF ENERGY
PRIVATE MAIL BAG
MINISTRY POST OFFICE
ACCRA, GHANA
Telephone: 233 (0)302 667151 – 3
Telex: 2436 ENERGY GH
Telefax: 233 (0)302 668262

FOR GHANA NATIONAL PETROLEUM CORPORATION:

THE CHIEF EXECUTIVE
GHANA NATIONAL PETROLEUM CORPORATION
PETROLEUM HOUSE
HARBOUR ROAD
PRIVATE MAIL BAG
TEMA
GHANA
Telephone: 233-(0)303-204726
FOR CONTRACTOR:
AGM PETROLEUM GHANA LTD
NUMBER 6, 4TH NORLA STREET
LABONE
ACCRA
GHANA
Telephone: +233 244682154, +233 30277 4378
Telefax:

QUAD ENERGY LIMITED
3 EMMAUSE 2ND CLOSE
LABONE
Telephone: +233265006700, +233 302 766431
IN WITNESS WHEREOF the parties have caused this amended and restated Agreement to be executed by their duly authorized representatives as of ..............2019.

FOR THE STATE

Witnessed:

By ............................................. By: ............................................................

Its............................................. Its.................................................................

FOR GHANA NATIONAL PETROLEUM CORPORATION

Witnessed:

By ............................................. By: ............................................................

Its............................................. Its.................................................................

FOR CONTRACTOR

AGM GHANA PETROLEUM LTD

Witnessed:

By ............................................. By: ............................................................

Its............................................. Its.................................................................
QUAD ENERGY LTD

By ........................................... By: ...........................................

Its........................................... Its.............................................
## ANNEX 3

### SAMPLE AOE CALCULATION

(As per Article 10.8, for the purpose of illustration only)

|                      | Year | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | Total |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| **Contractor After** |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **Tax NCF ($)**      |      | (10) | (20) | (30) | (40) | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150  | 805   |
| **Cost Inflation**   |      |      | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%    |
| **Account Calculation ($)** |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **ROR tranche**      |      |      |      |      |      | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 80%   |
| **AOE Account**      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **Calculation ($)**  |      |      | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%   | 5%    |
| **FA(n)**            |      | 15%  | 20%  | 25%  | 30%  |      |      |      |      |      |      |      |      |      |      |      |      | 15%   |
| **SA(n)**            |      | 10%  | 33%  | 27%  | 21%  |      |      |      |      |      |      |      |      |      |      |      |      | 10%   |
| **TA(n)**            |      | 10%  | 33%  | 27%  | 21%  |      |      |      |      |      |      |      |      |      |      |      |      | 10%   |
| **YA(n)**            |      | 10%  | 33%  | 27%  | 21%  |      |      |      |      |      |      |      |      |      |      |      |      | 10%   |
| **AOE Payment**      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **Calculation ($)**  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| **AOE Tranche**      |      | 5%   | 5%   | 5%   | 5%   |      |      |      |      |      |      |      |      |      |      |      |      | 5%    |
| **FA(n)**            |      | 10%  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0%    |
| **SA(n)**            |      | 15%  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 15%   |
| **TA(n)**            |      | 20%  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 20%   |
| **YA(n)**            |      | 25%  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 25%   |
| **Total AOE ($)**    |      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0%    |

Cost of inflation used 5%
Annualized version of Monthly Calculation
Hypothetical figures, rates and thresholds
The following is inserted as a new Annex 5 to the Petroleum Agreement:

ANNEX 5
Tax Credit

Calculation of Tax Credit:

Each Development Plan submitted by Contractor as updated by a PoD Update, shall include the Target Recovery Factor for each Discovery and field comprised by the Development Plan or PoD Update. The Contractor shall together with a Development Plan or PoD Update present a Competent Person Report confirming the Target Recovery Factor and the most probable recoverable barrels of oil and oil equivalents for each Discovery and field in the Development Plan or PoD Update.

The Tax Credit shall be in the amount of USD 460 million ("Base Amount") for each Discovery/field with a Target Recovery Factor higher than the Reference Recovery, assuming 500 million barrels of recoverable resources of oil and oil equivalents.

The Base Amount shall for each Discovery/field be adjusted as follows:

i. Where the prognosed P50 / most probable commercially recoverable resources of oil and oil equivalents is higher than 500 million barrels, the Base Amount shall be increased by 0.92 dollar per barrel above 500 million;

ii. if prognosed P50 / most probable commercially recoverable resources of oil and oil equivalents is lower than 500 million barrels, the Base Amount shall be reduced by 0.92 dollar per barrel less than 500 million.

The Tax Credit shall be equal to the adjusted Base Amount for each Discovery/field. Where there are more than one Discovery/field included in a Development Plan or PoD Update, the Tax Credit(s) shall be accumulated (added), provided that the total Tax Credit(s) granted under this Agreement shall not exceed USD 2.5 billion.

The Reference Recovery Factor is agreed to be 28% (twenty-eight per cent) and shall be fixed. The Tax Credit shall be exempt from all taxes, duties, fees and other imposts of any kind.
Key definitions:

Target Recovery Factor shall mean the prognosed P50 / most probable commercially recoverable resources of oil and oil equivalents, divided by the P50 / most probable in-place volumes of oil and oil equivalents, as stated in the Development Plan.

The prognosed P50 / most probable commercially recoverable resources of oil and oil equivalents shall mean the oil equivalent volumes assumed extracted from the reservoir zones targeted by the development wells described in the Development Plan.

The P50 / most probable in-place volumes of oil and oil equivalents shall mean the contributing in-place volumes of the reservoir zones targeted by the development wells described in the Development Plan from which P50 reserves are expected to be extracted.

A PoD Update shall mean the update, amendment or addendum to an existing Development Plan for the development of recoverable resources not previously granted a Tax Credit.

A Competent Person Report shall mean a report issued by an independent third party expert with technical experience and knowledge within the petroleum industry selected by Contractor.

The Target Recovery Factor is finally and irrevocably determined as set out the approved Development Plan or PoD Update and neither the Target Recovery Factor or the corresponding Tax Credit shall be subject to adjustments over the life of the field (or thereafter).

Calculation Example:

The following shows how the Tax Credit will be calculated assuming a development of one Discovery, Numbers shown in USD millions.

<table>
<thead>
<tr>
<th>Calculation example on one example Discovery (years)</th>
<th>0</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Credit granted</td>
<td>460</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recoverable barrels produced (in % of defined resource base)</td>
<td>10%</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Dividends declared</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHT dividends (assuming 8.0% WHT on dividends)</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Tax Credit ingoing balance</td>
<td>460</td>
<td>380</td>
<td>300</td>
<td>220</td>
<td>140</td>
<td>60</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Use of Tax Credit</td>
<td>-80</td>
<td>-80</td>
<td>-80</td>
<td>-80</td>
<td>-80</td>
<td>-60</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tax Credit outgoing balance</td>
<td>380</td>
<td>300</td>
<td>220</td>
<td>140</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>WHT on dividends payable in example</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>