



Quantum Power TEMA LNG PROJECT

POINTS OF CLARIFICATION FOR THE REPUBLIC OF GHANA

A Formal Response to Articles in:

The Statesman, 13th September 2017

The Daily Graphic, 14th September 2017

In recent days, the media celebrated GNPC's agreement with Gazprom for the supply of LNG to Ghana. False statements have been made regarding the agreement Quantum Power ("Quantum") signed with GNPC on 21st October 2016, to provide Ghana with the infrastructure required for the importation of LNG from whichever supplier or source Ghana chose. Quantum was subsequently requested to respond to various queries made by the Ministry of Energy and Petroleum ("MoEP") as the latter tried to compare three very different propositions. The other two propositions are bundled LNG supply and infrastructure agreements which do not allow Ghana the flexibility on the source of LNG. Regardless of Ghana's choice, some of the statements and insinuations against the Quantum project must be corrected and the documented facts stated clearly. The below addresses the most glaring falsehoods.

a. Quantum's tariff for its infrastructure and regasification service of 250 MMscf/d is \$1.30 per MMBtu for a 10-year term. Any other price, term or capacity published, alleged or reported is false.

Quantum has provided this pricing in a formal letter sent to the Minister of Energy and Petroleum and the LNG sub-committee on 13th July 2017. The MoEP then issued a formal request to all proponents on 24th July 2017 to reconfirm pricing by 26th July 2017. Quantum reconfirmed this pricing in a sealed envelope tender process, administered by the MoEP. Accusations of Quantum providing "an unsolicited and irregular proposal...after the close of submission", "...only submitting an offer for 20 years...", or "...based on GNPC's committing to a 100% increase in the minimum volumes....to 500 MMscf/d" are blatantly false (as well as inconsistent).



b. Quantum never offered to provide LNG. It offered Ghana the mechanism to bring the LNG in-country and left it to Ghana to choose its LNG supplier. Therefore, any attribution of an LNG price to Quantum’s infrastructure, which is not a market-based price, is by definition, arbitrary. Based on the table detailed in the Daily Graphic, if Ghana were to buy LNG from Gazprom at \$6.36 per MMBtu, the total price using Quantum’s infrastructure would be \$7.66 per MMBtu, slightly below Gazprom’s own offer. If Ghana were to buy LNG from the United States, for example, the total price would be \$6.14 per MMBtu.

Below is a table from the MoEP final, signed report of 1st August 2017, that compares the prices from Gazprom and prices achievable using Quantum’s infrastructure and buying LNG at the available market prices. Evidently, and contrary to what was published, Quantum is not “the most expensive” but indeed the cheapest by far, with direct savings of \$1.5 billion over the period, as compared to the next best offer. This is a conservative estimate which excludes at least \$1.0 billion in savings given the shorter construction schedule of the Quantum Project.

\$/MMBtu	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Avg
Quantum	6.12	5.94	5.93	5.97	6.03	6.11	6.2	6.31	6.31	6.31	6.31	6.14
BEM (Gazprom)	7.35	7.39	7.46	7.54	7.64	7.74	7.85	7.95	8.06	8.25	8.44	7.79
WAGL	10.49	11.08	11.44	11.7	11.91	12.03	12.15	12.35	12.53	12.65	12.7	11.9

c. Quantum never required GNPC to invest in the project. The project infrastructure cost, including all pipelines, were to be fully borne by Quantum and Höegh LNG. It was GNPC who insisted on having the right to invest in the project.

This has been distorted in the media to suggest that Quantum required GNPC to invest in the project. This is false.



d. Quantum's technical solution has been vetted by Höegh LNG (the world's most experienced LNG terminal vessel provider and Quantum consortium member), most of the world's largest LNG suppliers, fleet owners and GNPC's own external technical advisors, and many others.

Ship-to-ship LNG transfers are done regularly by Höegh LNG, and most other oil and gas companies and LNG vessel owners around the world. Fear-mongering about Quantum's technical solution is not based on facts, nor informed by industry expertise or knowledge.

e. Quantum's credit support from GNPC (and not from the Government) is less than 40% of that required by Gazprom and was always intended to be covered by the LC for the LNG. Quantum requested no Government guarantee and none was granted.

It was GNPC who tried to transfer the credit support responsibility to the Government. Quantum working in collaboration with AfDB sought to provide an AfDB partial risk guarantee to cut the Government's credit cost burden to a quarter of the original amount.

Quantum Power has requested the Ministry of Energy and Petroleum to nominate an independent, international LNG expert to confirm that the Quantum project is indeed the most flexible and least cost solution for Ghana, in comparison to all other suggested projects. This request has yet to be answered.