Title An Economic Assessment of Ghana's Investment in LNG Infrastructure

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Motivation and Purpose of Study

- Ghana currently faces an intense energy crisis problem with a huge power supply deficit
- Energy think-tanks have proposed the construction of an LNG import facility to augment gas supply for increased power supply
- The research evaluates the economic viability of constructing an LNG import facility

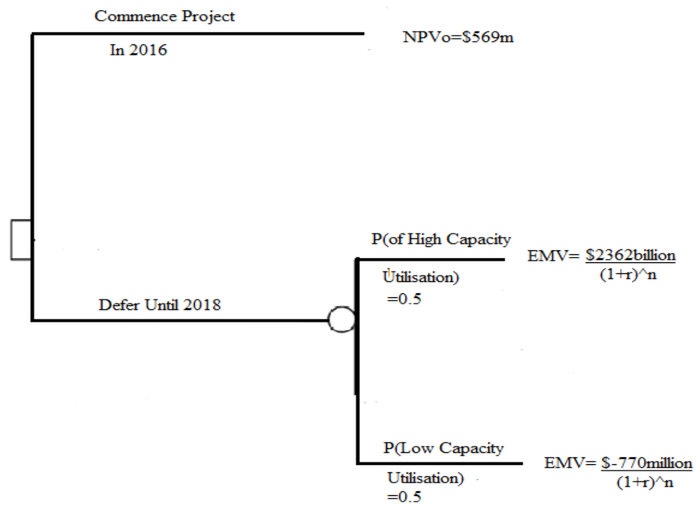
Methodology

- The DCF model was constructed using data from Energy Commission and the Heads of Term agreement signed between Quantum Power Ghana and GNPC.
- A cost benefit analysis is conducted to see if the proposed project will be profitable or not
- Key performance measures-NPV, IRR and NPV/I.

Results

Base Case Scenario	
Post Tax Net Present Value	$569,893,145
Internal Rate of Return	14%
Approximate Payback Years	14years
Discounted Return on Investment	1.04

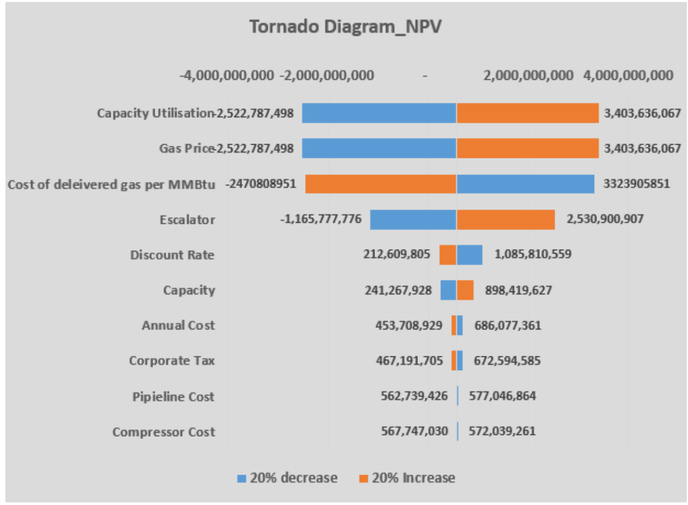
Base Case NPV ($)	Number of Years Delay	NPV Under a Delay ($)
569,893,145	One	518,084,677
569,893,145	Four	389,244,686
569,893,145	Six	321,689,823



•Main findings from the base case scenario shows that the LNG project will be economically viable if constructed now

•A decision to delay at the development stage will reduce the NPV from the project

•A decision to wait for uncertainties to be resolved before commencing project may increase NPV.



- Attention must be paid to the accuracy of the final price and capacity utilisation quoted as their values significantly impact the NPV

Conclusion and Recommendation

- The LNG project would be economically viable and must be undertaken now
- Commencement of the project can be deferred if the investor's valuations from the project shows that the project will earn a higher NPV after uncertainties are resolved.

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