



23rd World Gas Conference



Developing Gas Markets through
Increasing Cross-Border Integration

The West African Gas Pipeline and Power Pool

–Building Blocks for a Regional Energy Market–

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The West African Gas Pipeline Integrated Regional Energy System



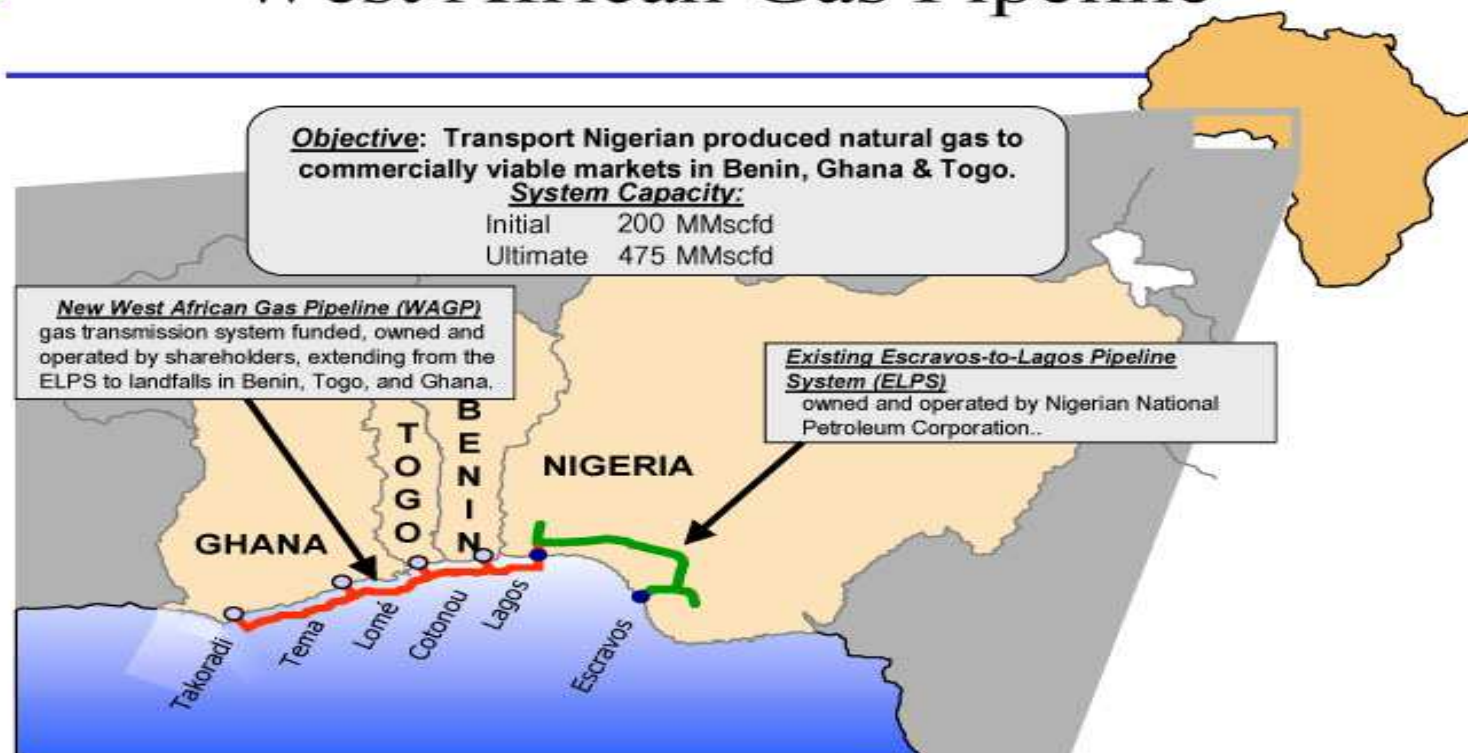
- WAGP is the first regional gas project of such magnitude (circa \$ 690 million) creating J-Ventures of a new kind:
 - Public-Private Partnership: NNPC, VRA, Sotogas sobegas, with ChevronTexaco and Shell as main project sponsors and financiers of the 681km, 20” pipeline.
 - Multilateral Development Institutions using financial instruments such as Partial Risk Guarantee (WB-PRG) and Political Risk Guarantee (MIGA)
 - WAGP is the backbone of a 15 members of ECOWAS-Regional Energy System: The West Africa Power Pool.
 - It will interconnect their national grids into one, to create an able regional market for energy services such as electricity.



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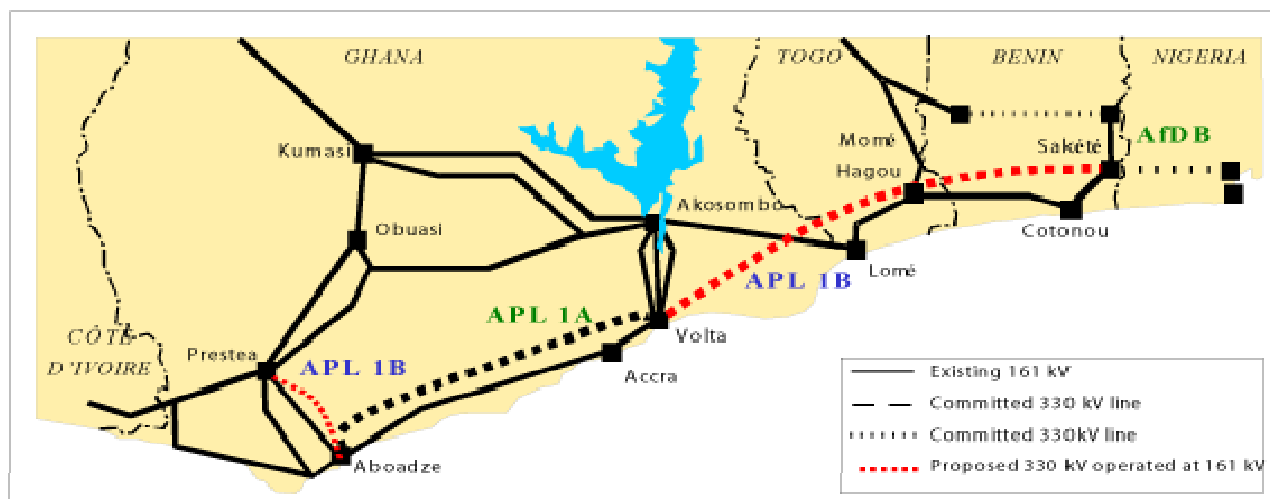


West African Gas Pipeline



The West African Power Pool Integrated Regional Energy System

The WAPP 330 kV Coastal Transmission Backbone





The West African Gas Pipeline Integrated Regional Energy System



- WAGP will provide Nigeria with the first International gas export pipeline helping meet its diversification goal of hydrocarbon export, help monetize flared Associated Natural Gas under the 2008 Flare Out Policy whilst reducing its carbon emissions
- WAGP and WAPP will provide Benin, Togo and Ghana with more secure and interchangeable forms of energy.
- WAGP and WAPP will enhance inter-regional energy & other trade and in securing the countries from catastrophic events, especially those that are drought induced.
- The combination of both systems can facilitate the exports of gas in the form of power trade, to the deprived hinterland countries such as Burkina Faso, Niger and Mali.





The West African Gas Pipeline Integrated Regional Energy System



- WAGP and WAPP will combine to bring about real security of supply and ensure a power pooling mechanism, to promote inter-utility cooperation between the eight countries, in planning their energy investments and jointly operating their now inter-connected National Power Systems, into a much wider and secure Regional Grid.
- The two systems will greatly contribute to reduce vulnerability to drought-induced, power supply disruptions in any one country, spur on economic growth, improve access to stable, reliable affordable clean energy and most of all, integrate their existing large, national hydroelectric systems into the new gas fired Power Generation.
- This is a first major step to bring about access to the vast gas resources of Nigeria to all countries in the Region and interconnect them with surplus power capacity available from Côte d'Ivoire, creating an interchangeable Regional Energy trade.





The West African Gas Pipeline Integrated Regional Energy System



- The WAPP should promote ECOWAS cross-border power exchange and energy trade amongst members and beyond
- Assure national power utilities of mutual assistance to avoid Regional Power System collapse and in case of failure, rapid restoration of interconnected power systems, including outside ECOWAS community.
- Increase access of ECOWAS member states to more reliable energy supply for both lower cost regional hydroelectric systems as well gas or gas-fired thermal power sources, leveling the playing field for a more general access to clean, reliable energy
- Generate Regional and Cross-border Energy Trade to facilitate Regional Integration amongst member States





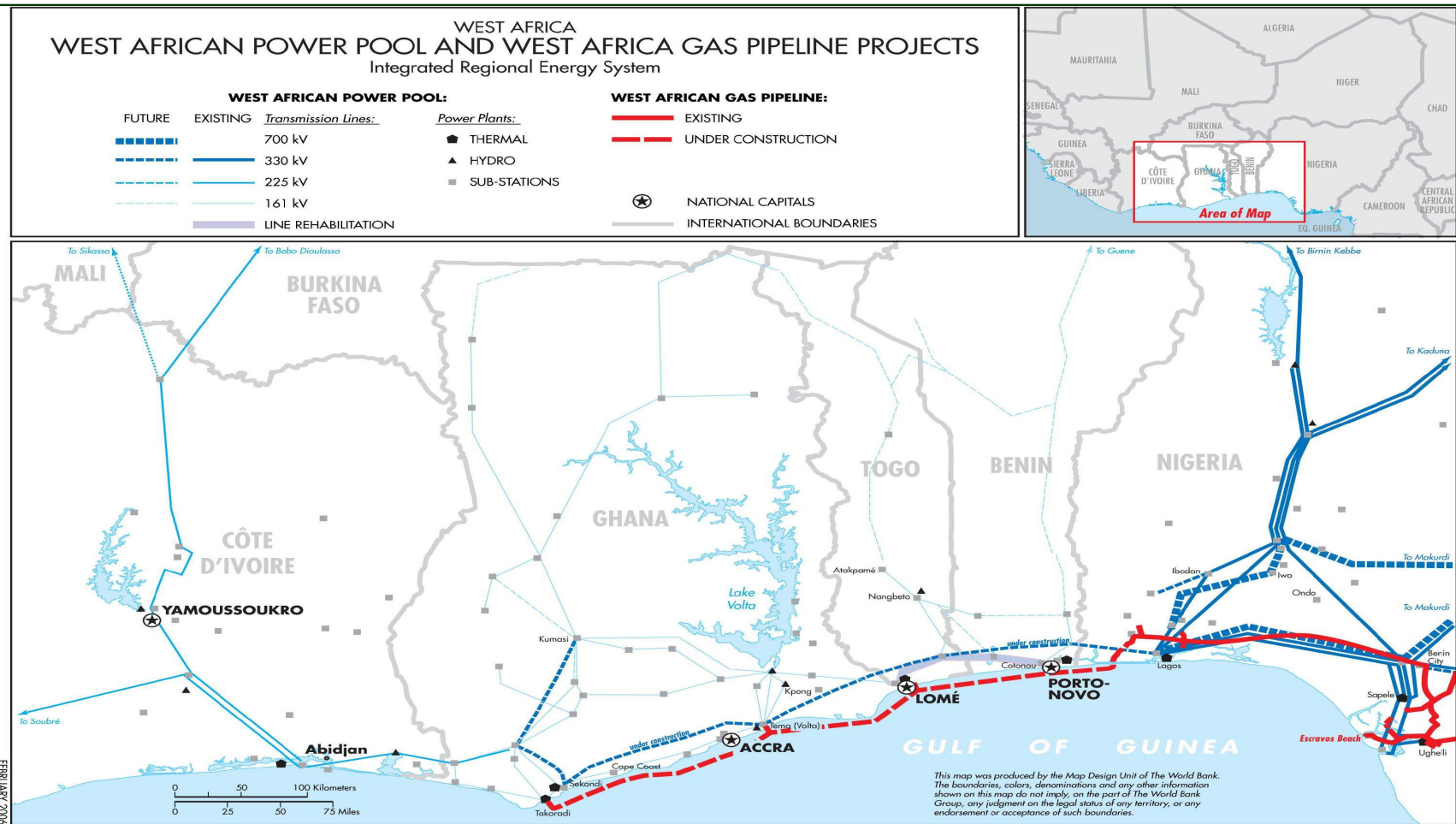
The West African Gas Pipeline Integrated Regional Energy System



- The WBG convening power brought about Public-Private interests in an innovative partnership, leveraging a small financing to bring larger capital to the table, minimizing any major risk to the WBG and other stakeholders.
- WAGP financing included a very original mix of IDA and MIGA Guarantee instruments to cover commercial, geographic as well as political risks associated with the project.
- IDA Partial Risk Guarantee (PRG) will protect against commercial risks by the main off-takers failing to honor contractual obligations (\$50 million)
- MIGA guarantee will cover against political and other similar risk (\$75 million).
- All four Governments participated in project risk-sharing through equity acquisition in the project (NNPC, SOBEGAZ, SOTOGAZ, VRA).



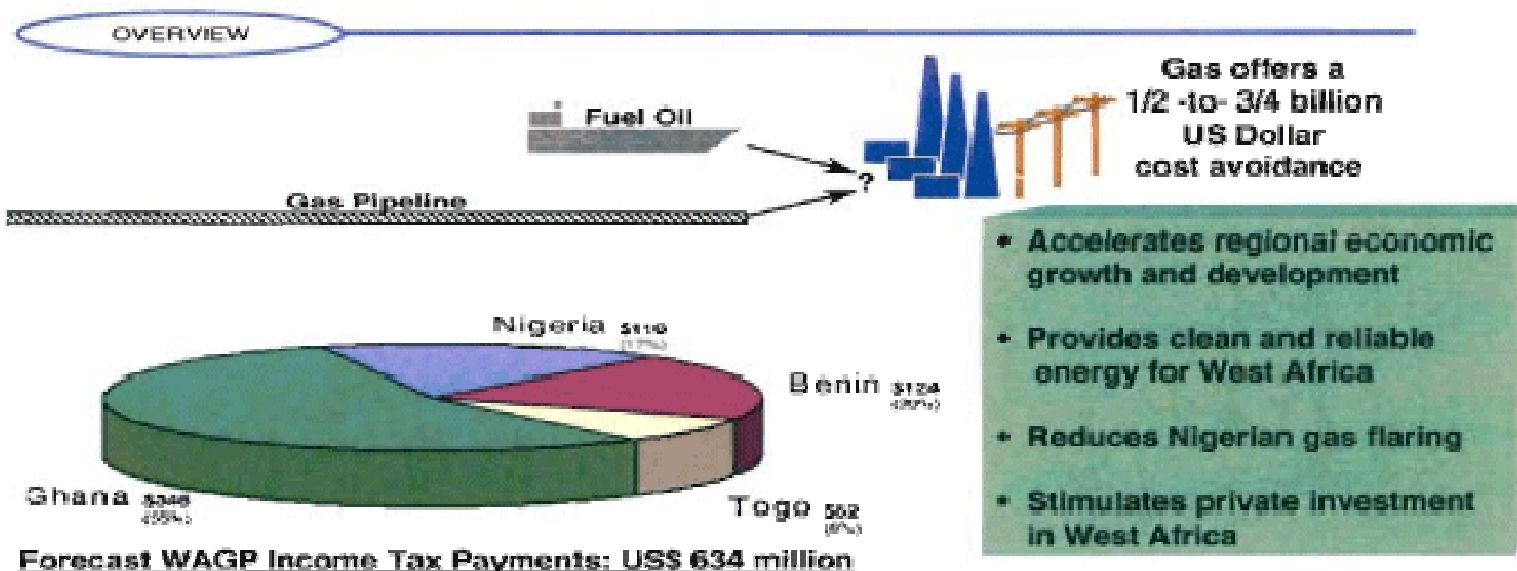
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Benefit of Developing the WAGP

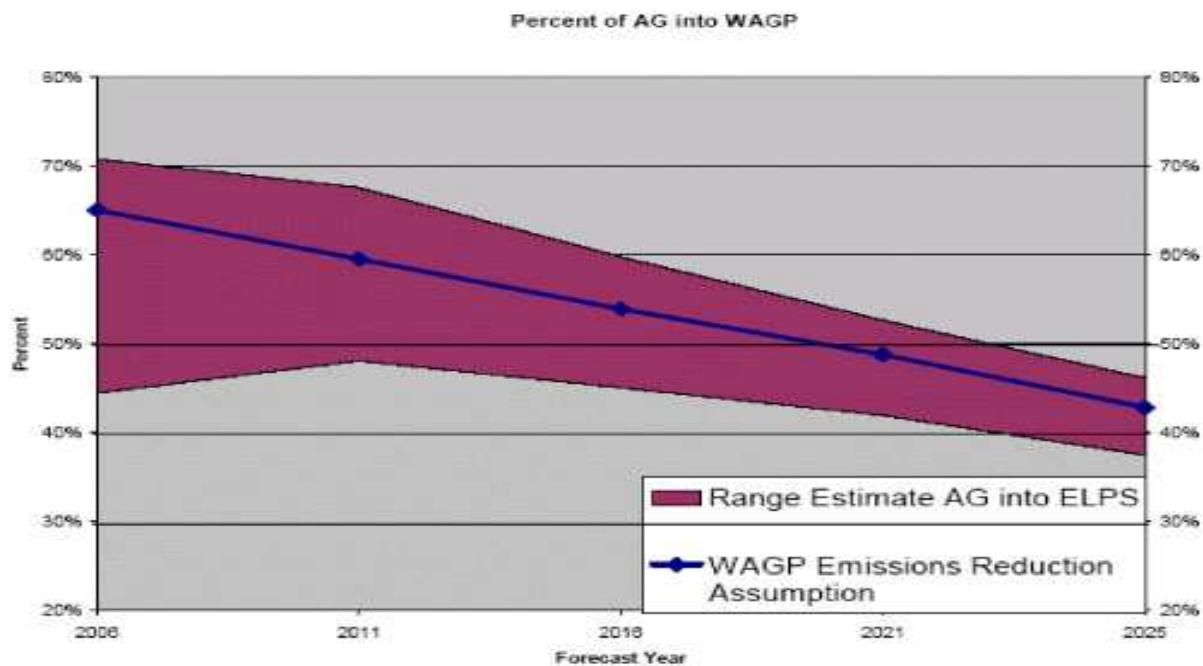




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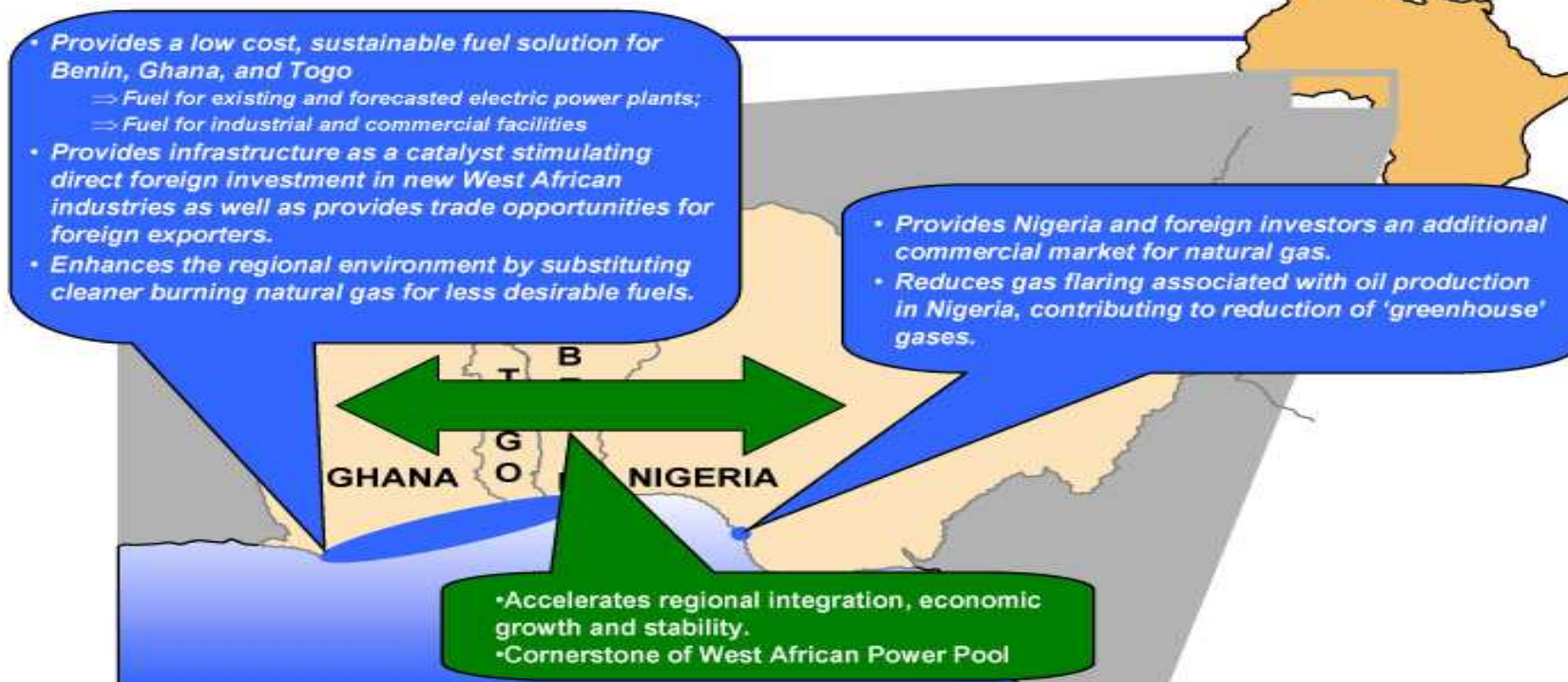
Gas Flare Reduction



The West African Gas Pipeline Integrated Regional Energy System



Benefits of WAGP





The West African Gas Pipeline Integrated Regional Energy System



- In conclusion, the WAGP and the WAPP are two main building blocks in promoting and integrating the Gulf of Guinea countries with secure, sustainable Energy Supply and Trade, level the playing field for the Energy Sector Legal and Regulatory Framework, leading to more forward looking reforms in other sectors.
- Both projects will bring greater and faster economic integration in the Region whilst providing sound support for long term clean energy requirements
- These will improve access to energy and are part and parcel of the GMD as well befitting the countries development goals, enhanced energy security and sound base for capturing and distributing hitherto wasted or undeveloped local gas resources of Nigeria

