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Contents

- Is there a requirement for new gas infrastructure?
- What are investor perspectives?
- Recent regional developments to further boost gas demand



Considerations for new regional gas infrastructure

Large & growing supply, Huge regional energy needs



150Tcf

Sub-region Natural gas reserves (30% of Africa)



678km

1 Active transmission regional pipeline



22MTPA

Current LNG production capacity



c.50.8GW

Projected electricity demand in ECOWAS states by 2033

SUPPLY CONSIDERATIONS

- Huge gas resources on the continent West Africa accounts for 30% of continent's gas reserves
- Nigeria's flare reduction program is expected to yield continuous growth in production
- New discoveries in Ghana and recent offshore finds in Ivory Coast will boost overall regional supply
- Development efforts to enable LNG production are ongoing in Senegal and Mauritania.

DEMAND COSIDERATIONS

- West Africa is home to some of the fastest growing economies globally Ghana (8.8%), Cote d'Ivoire (7.4%)
- Ongoing investments in power generation capacity and transmission reinforcement under the West Africa Power Pool (WAPP) initiative
- Peak electricity demand in ECOWAS expected to reach 50,800MW by 2033 driven by industry development and population growth
- The ACFTA agreement will facilitate rapid industrialization across Africa



Large pool of Africa-focused energy investors







Huge investor appetite:

Over \$20 billion in commitments, ongoing projects

Investor Commitments



\$3 billion Africa focused private equity firm with interests in energy infrastructure



Looking to lead debt arrangements for a project pipeline worth **\$5 billion**



Investor in growth markets including Africa; currently managing **\$9.2 billion** in assets



\$771.6 million West Africa investment portfolio

Ongoing Developments



\$350 million 2MTPA LNG import & regas infrastructure in Ghana



\$1.6 million grant to the Nigerian National Petroelum Corporation (NNPC) for an IPP project in Abuja Nigeria





\$1.3 billion 2.5MTPA FLNG development in Senegal and Mauritania



Maria Gleta **127MW** gas-fired power plant in Benin



Risks:

Factors affecting viability & potential to attract gas investments

The major issues relate more to the commercial construct rather than technical limitations.

Low investment ratings as a result of perceived credit-worthiness problems

Long term financing requirement versus the availability of 'patient capital'

Overall unstable regulatory and political climate

Poor quality and reliability of power transmission and distribution assets

Geopolitical and security challenges



Recent regional developments

Will further boost demand

- Integration of national power systems into a unified regional electricity market. Ongoing investments in generation and transmission infrastructure under the WAPP initiative
- Efforts at facilitating intra-Africa trade. The Africa Continental Free Trade Agreement (ACFTA) has been ratified by all the sub-regional countries
- Cote d'Ivoire is on track to join the league of emerging economies by 2020. Ongoing economic and structural reforms on course to strengthen economic growth
- Moroccan-Nigeria gas pipeline initiative, defined as a unifying trans-regional project that will connect 15 West African countries. Morocco applied to join ECOWAS in 2017

