



THE ROLE OF GAS

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NATIONAL OFFICE

61 Katherine Street,
Sandton, 2196
P.O. Box 652807, Benmore, 2010

CONTEXT

- Energy Security is key to the economic recovery and growth of South Africa. Energy must be available at affordable prices that is also reliable and meets the needs of the customer.
- Energy policy must create an enabling framework for energy-related development.
- Unnecessarily onerous, costly or time consuming requirements should be removed.
- Energy planning must focus on those projects which have the fastest timeframes to commercialisation; are least-cost; and accelerate the decarbonisation of South Africa's grid.

DECARBONISATION

- BUSA supports the role of natural gas as part of the just transition, particularly in the energy mix as part of the short (2030) -to – mid (2040) -term efforts to decarbonise the economy.
- BUSA supports the evidence that natural gas can be leveraged as part of a transition to a net-zero ecologically sustainable economy in 2050.
- This is borne out through the independent modelling work – “Just Transition and Climate Pathways Study for South Africa” – a partnership between BUSA, the National Business Initiative (NBI); and the Boston Consulting Group (BCG).
- The study shows that 10-25GW of natural gas capacity is needed for load balancing as coal plants reach their end of life from now until 2040. From 2040 to 2050, natural gas still has a role in the energy system for peaking coupled with Direct Air Carbon Capture and Storage (DACCS).
- There is also potential for Natural Gas to support Industry’s efforts to lower their carbon emissions.

BEYOND GAS-TO-POWER

- Gas can be used in multiple industrial processes and finds application in several sectors such as gas-to-liquids applications, chemical production, aluminium, cement, iron and steel, textiles, and mining, among others.
- Currently the top ten industrial gas users in South Africa contribute over ZAR150billion p/a in turnover and employ more than 46 000 people. Sasol, the largest single user of gas, employs a further 26 000 people and contributes over ZAR200billion p/a in turnover.
- There is significant and growing demand for natural gas for industrial use; fast exceeding the current supply. It is therefore critical that opportunities for industrial users to access natural gas are leveraged.

GAS SUPPLY & DEMAND RISK DYNAMICS

- **Gas demand has already exceeds supply** – South Africa shortage now $\pm 95\text{PJ/a}$ or 170PJ/a (PetroSA incl)
- Gas demand fuelled by:
 - Industrial growth (est. at 2%/a GDP growth)
 - Petrochemical sector doubling up on gas feedstock
 - Private power generation (refer 100MW cap)
 - Conversion of diesel & coal power stations (coal-Kelvin, Komati; diesel-Ankerlig, Avon, Dedisa, Gourikwa)
 - RMIPPPP (1,4GW)
 - IRP 2019 Gas-to-Power allocations (3GW)
 - Logistics and mining sectors demand for cheaper and cleaner fuel alternatives (diesel substitution)
- Above demand across geographical areas i.e. –
 - 1) Gauteng/Mpumalanga complex;
 - 2) KZN;
 - 3) Eastern Cape;
 - 4) Western Cape

LNG BRIDGING – AN INTERIM STOP GAP

- BUSA believes that urgent LNG receiving infrastructure is required in SA ports i.e., Coega, Richards Bay, Saldanha Bay
- These solutions are synergistic with government policy, including the GAB; ERRP; and IRP.
- Benefits include:
 - Technically & commercially feasible with no permanent infrastructure investments
 - Rapid mobilisation (18-24 months), demobilisation
 - Immediate and significant gas economy development potential i.e.. LNG distribution, manufacturing, energy security, energy efficiency gains
 - A no-regret decision with no country/public investment risk
 - Allows LNG market development now for future large-scale investments
- No coordinating regulatory framework exist to implement

CONCLUSION

- Secure, reliable and affordable gas energy is critical to economic recovery and growth.
- Gas is a key component of the energy mix in to enable the deeper penetration of RE as SA embarks on an accelerated decarbonisation plan to meet our commitments under the Paris Agreement.
- Beyond G2P, there is significant natural gas demand for industrial use.
- LNG bridging should be prioritised to meet short term gas energy demand.
- A coordinated and enabling policy framework is needed to unlock the potential investment and development of natural gas over the short and long term.
- Accordingly, all unnecessarily onerous requirements and processes must be removed.