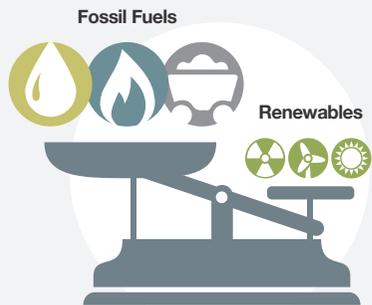


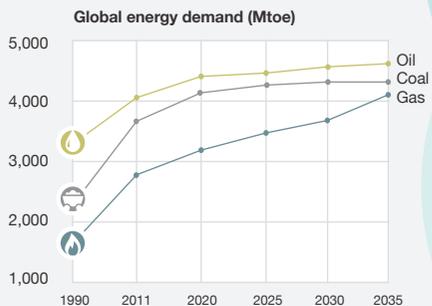
ENERGY FUTURES: A MACRO-ECONOMIC VIEW AND LOOK AHEAD TO 2035

Global energy demand forecast

- Fossil fuels will dominate the global energy mix
- Renewables will expand their share



Global natural gas demand will rise more quickly than oil or coal.



Source: IEA World Energy Outlook 2013, New Policies Scenario

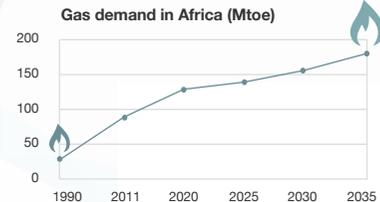
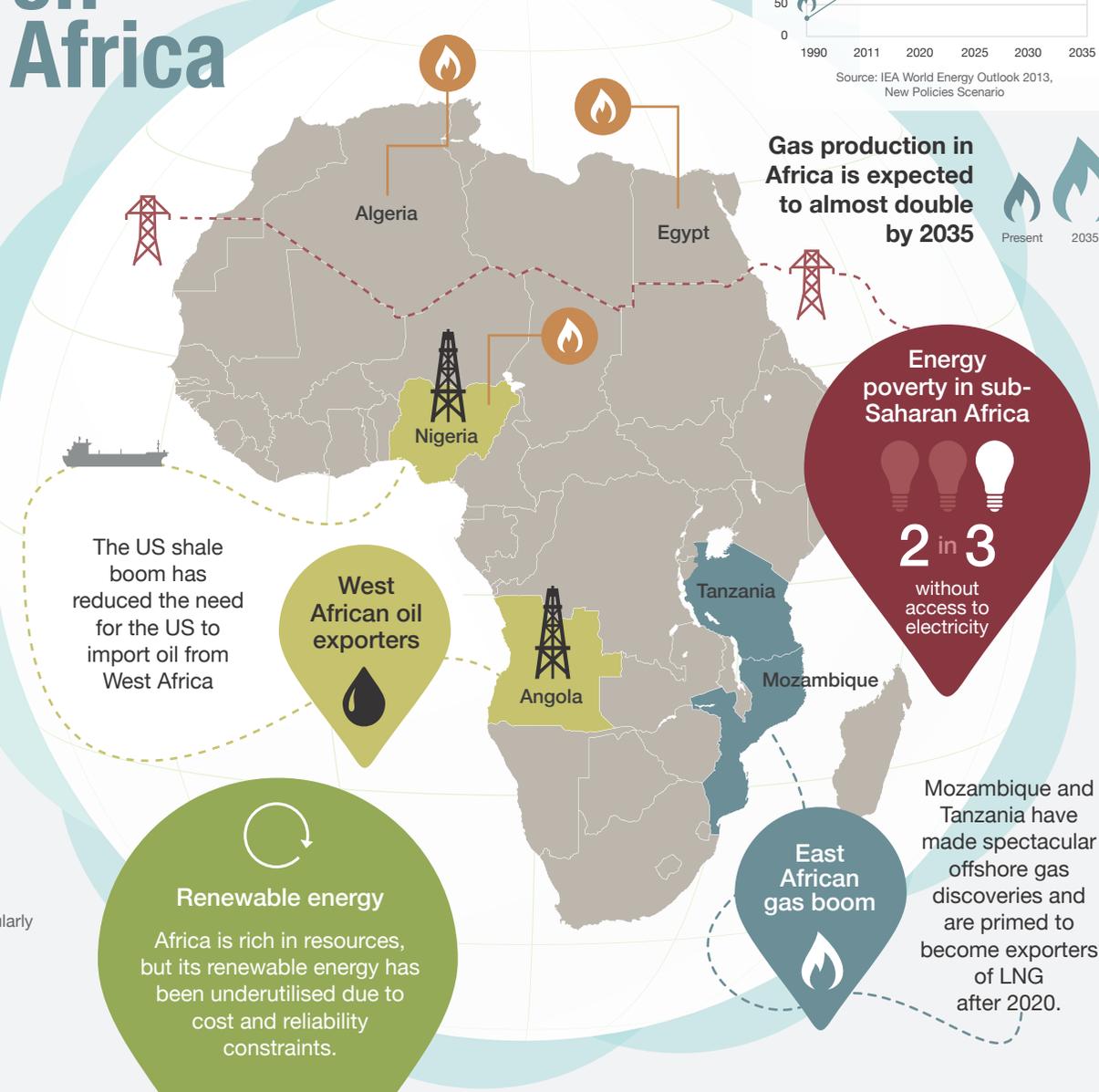
Main drivers

Shift from coal to gas in power generation (particularly in China and the US)

Greater use of natural gas as a transport fuel

Focus on Africa

Africa will be one of the fastest-growing regions for power demand, particularly gas in Nigeria, Egypt and Algeria.



Source: IEA World Energy Outlook 2013, New Policies Scenario

Gas production in Africa is expected to almost double by 2035

The US shale boom has reduced the need for the US to import oil from West Africa

West African oil exporters

Energy poverty in sub-Saharan Africa
2 in 3 without access to electricity

Renewable energy
Africa is rich in resources, but its renewable energy has been underutilised due to cost and reliability constraints.

East African gas boom
Mozambique and Tanzania have made spectacular offshore gas discoveries and are primed to become exporters of LNG after 2020.

Macro-economic implications

Prosperity

Traditional exporters (Nigeria and Angola) have not derived broad prosperity from the development of their hydrocarbon reserves. How can this change?

Ties with China

China needs resources to fuel its economy. How will energy trade between Africa resource exporters and China evolve?

Infrastructure

Inadequate infrastructure remains an obstacle towards Africa achieving its full economic and energy growth potential.

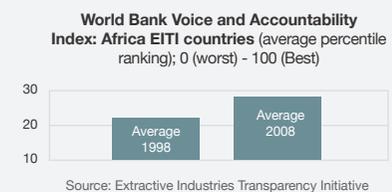
Can decentralised networks deliver more cost-effective services to Africa's growing population?

Security of supply

What is the balance of base load, renewables and quick-starting power plants required to make energy supply more reliable?

Resources and transparency

Is export revenue being managed to ensure extractive industries yield broader societal benefits?



Source: Extractive Industries Transparency Initiative