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A World-Class African Crude Refinery at Coega

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About Mthombo



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KEY FEATURES

- Will process 400 000 barrels per day
- Designed to process heavy, acidic and high-sulphur crude oil – maximise returns
- Designed for high conversion: i.e. maximise distillates such as diesel and no heavy fuel oil
- Designed for Euro V specifications for use in modern engines
- Economies of scale and proven low-cost technology will ensure lowest cost gasoline and diesel
- Only proven technology selected to mitigate risk
- Designed for lowest emission standards
- The refinery cost is approximately \$11billion



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KEY FEATURES

Economies of scale and low-cost technology will ensure lowest cost diesel and petrol

Margin drivers

1. The 400,000 barrels per day capacity will reduce operational and capital costs by 20-30%
2. Full conversion configuration:
The Coker-unit will convert the heavy part of the crude to valuable products gasoline and diesel
3. Processing challenging crude -
traded with a quality discount
4. Euro V level clean fuels will be produced

**Coega as a
clean fuels
distribution
hub**



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Why Mthombo?



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There is a shortage of refining capacity in South Africa, the SADC and throughout the continent.

To address this PetroSA plans to build Mthombo - a world-class crude oil refinery at Coega

This investment will provide many opportunities for other companies and suppliers of equipment and services

Leveraging a commercially attractive South African crude refinery project to promote energy security, regional cooperation and macro economic development

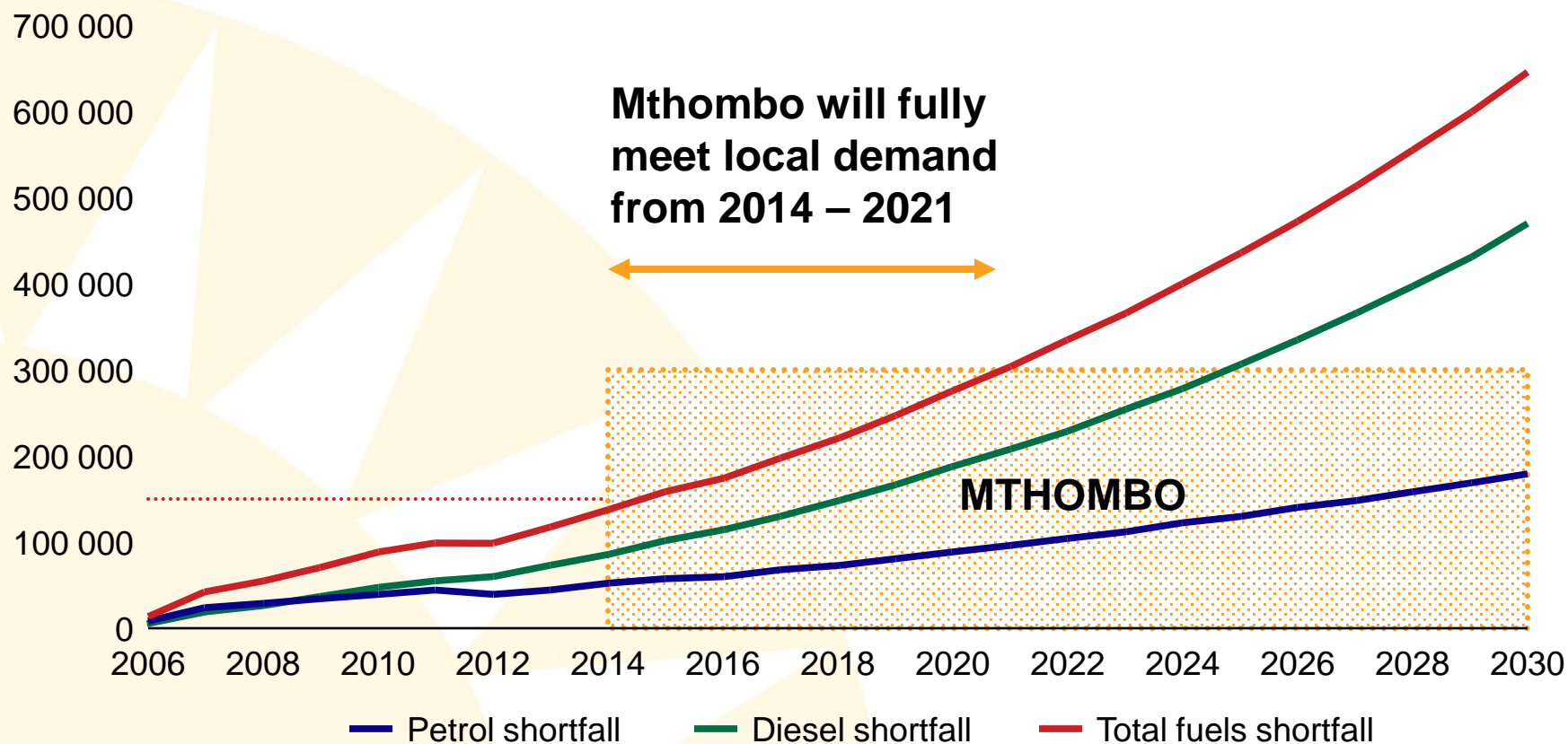
COEGA REFINERY: A MEGA PROJECT (superimposed on the City of Cape Town)





SOUTH AFRICA IS RUNNING OUT OF REFINING CAPACITY - Mthombo will address this

New product demand (barrels per day)



Source: Fuel Strategic Supply Task Team (FSSTT)
Fuel demand growth projections are based on 3% GDP growth:
• Petrol + 2,9% and Diesel + 6%
• Assumption of 80% gasoline and diesel yield in new crude refinery



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Why at Coega?



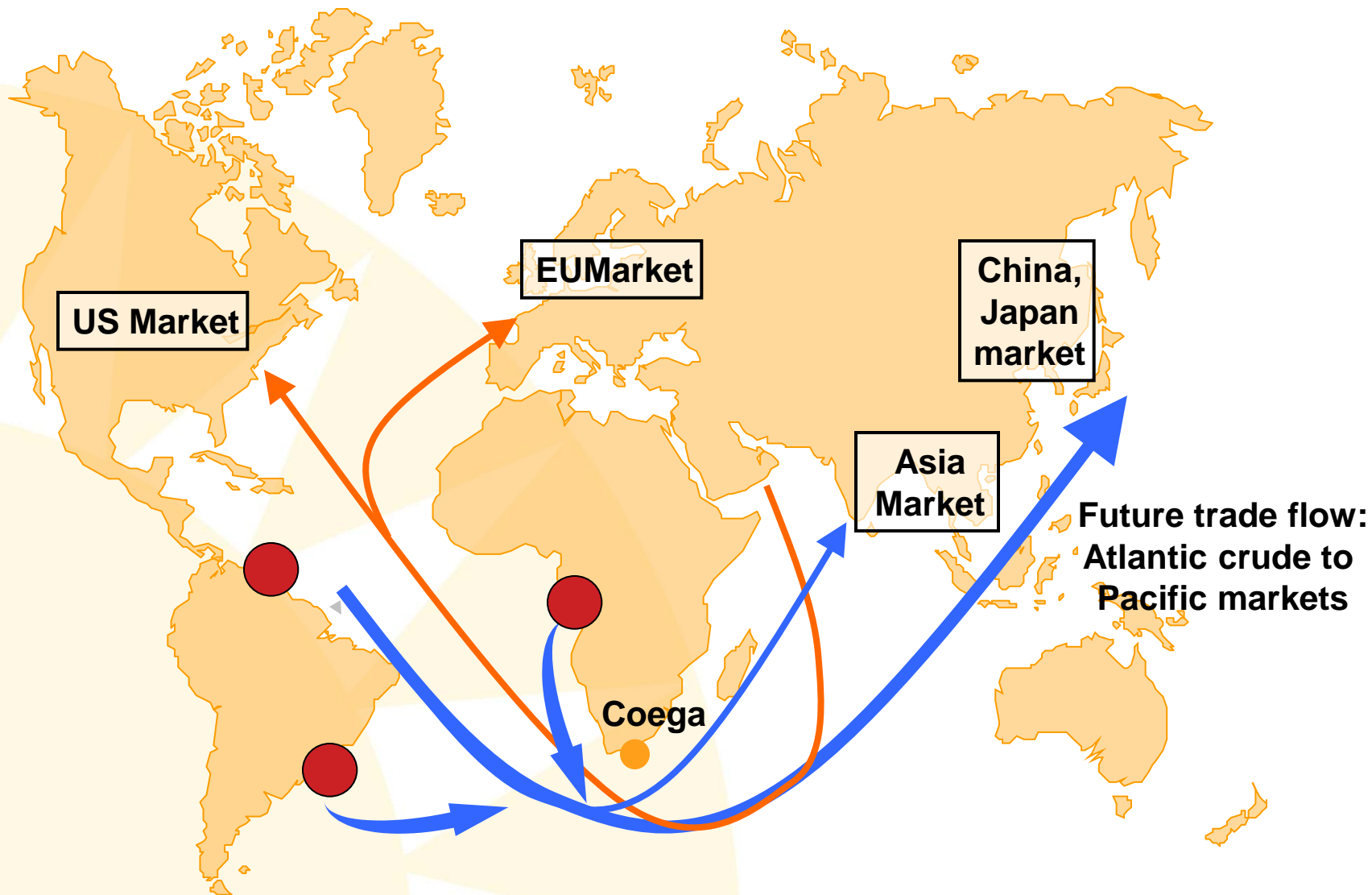
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WHY AT COEGA?

- - Will provide export opportunities
- Complementary pipeline to Inland markets will reduce logistics costs
- World-class capacity, configuration and crude flexibility secure high refinery margins
- New growth centre in SA: IDZ and phased development of petrochemical hub
- Enabler for regional trade



LOCATION IDEA FOR SECURITY OF SUPPLY AND ACCESS TO EXPORT MARKETS



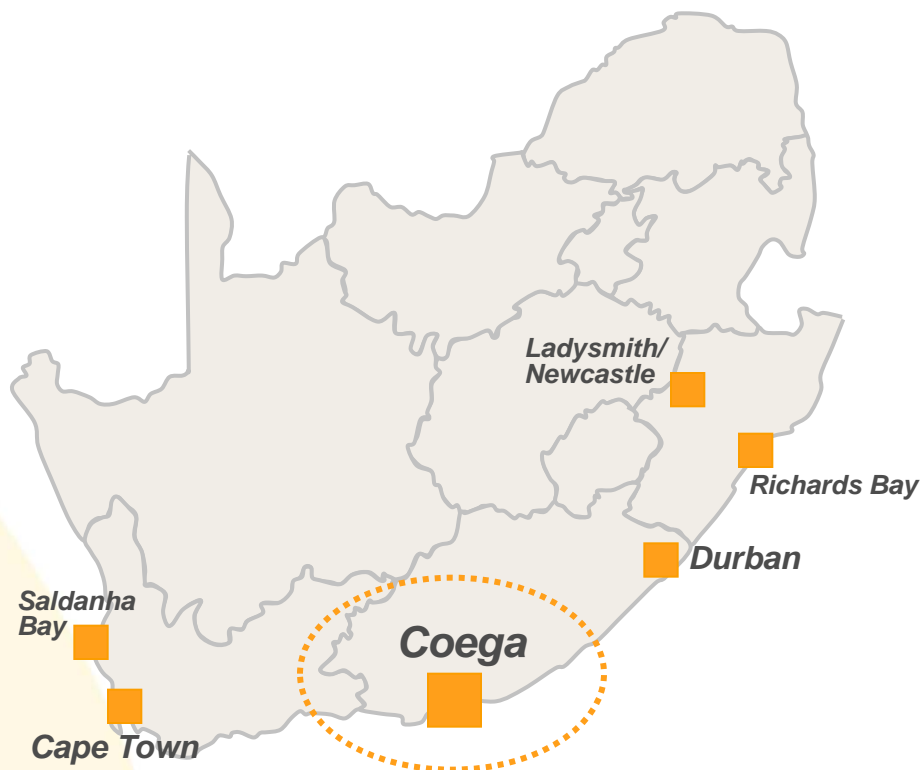
COEGA IDZ SELECTED IN LOCATION SCREENING PROCESS

KEY CHARACTERISTICS

- Six potential locations screened according to 11 criteria
- Selection overseen by independent external facilitator
- Coega was the preferred location
- CDC selected PetroSA as preferred investor
- SPM feasibility study results confirm selection of Coega

NOTE:

Durban and Cape Town eliminated due to environmental considerations, ports congestion and diversification of supply





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PROPOSED REFINERY LAY-OUT





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National and regional impacts

MACROECONOMIC BENEFITS

- 27 500 jobs during construction phase
- 18 500 jobs during operational phase
- Unlocks regional growth potential e.g. car industry; petro-chemicals
- R18,5 billion/annum balance of payment savings
- R1.5 billion additional tax revenue p.a.
- Develops skills and technology
- Attracts foreign investors
- Alleviate poverty

REGIONAL ECONOMIC BENEFITS - INFRASTRUCTURE

- Infrastructure to supply refinery with utilities:
 - Hydrogen plant
 - Power plant to supply 200MW
 - Port development (6 liquid berths)
 - Storm water drainage facilities
 - Effluent water treatment plants
 - Desalination plant to supply fresh water

REGIONAL ECONOMIC IMPACT

- New source of revenue for local and provincial authorities – rates and taxes
- New roads and infrastructure
- Housing for approximately 35 000 people
- Schools and clinics
- Catering, transport and sports facilities required

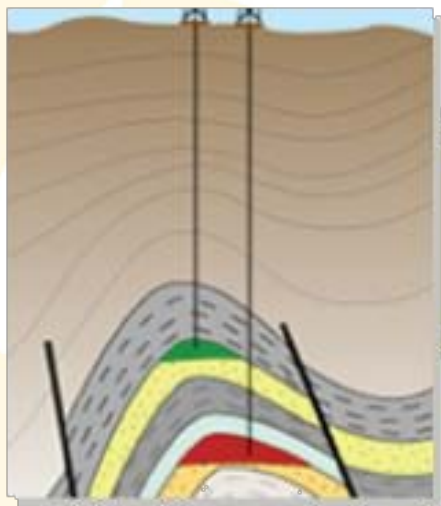


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Partnership Opportunities

OPPORTUNITIES ALONG OIL VALUE CHAIN

Upstream



**Exploration &
Production**

Midstream



**Transportation &
Refining/Processing**

Downstream



**Distribution &
Retail Sale**

INVESTMENT OPPORTUNITIES

Crude Supply

- Crude sourcing and trading
- Crude shipment
- Crude upstream exploration and production

Product Off-take

- Trading and wholesale opportunities
- Opportunities as product suppliers
- Petrochemicals trading (Petroleum-coke and sulphur)

INVESTMENT OPPORTUNITIES

Equity

- Equity investments translates to trading and wholesale opportunities
- Equity opportunities as service providers

INVESTMENT OPPORTUNITIES

Preferential Procurement/CSDP

- Procurement of goods & services by BBBEE companies estimated at R3 billion per annum
- References for future projects
- Supply of Technology, Equipment
- Supply of Power 200 MW
- Supply of hydrogen
- Supply of bio-fuels

INVESTMENT OPPORTUNITIES

Engineering Procurement and Construction

- Supply of engineering services
- Electrical, mechanical, civil engineering
- Access to global best practices through working with international partners
- Local artisan training
- Opportunities as sub-contractors

BUSINESS OPPORTUNITIES

Employment Equity

- Drive employment equity in JV
- Support transformation with development plans

Logistics

- Investment in tank-farms
- Investment in Depots
- Investment in transport modes (pipeline, rail, road & shipping)

CORPORATE SOCIAL INVESTMENT

- Eastern Cape is one of primary beneficiaries of PetroSA's Corporate Social Investment programme
- Education, Health and the Environment are priorities
- 1% of PetroSA's net operating profit

CURRENT STATUS

- Leading global financial and engineering consultants appointed – HSBC, KBR
- PetroSA team working alongside KBR in Houston
- Project on schedule – full feasibility report to be submitted to PetroSA Board by year-end
- Project remains commercially robust with significant upsides



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Thank You

Questions?