GTL – A Window of Opportunity

World XTL Summit, 7th June 2011
Forward-looking statements

In this document we make certain statements that are not historical facts and relate to analyses and other information which are based on forecasts of future results and estimates of amounts not yet determinable. These statements may also relate to our future prospects, developments and business strategies. Examples of such forward-looking statements include, but are not limited to, statements regarding exchange rate fluctuations, volume growth, increases in market share, total shareholder return and cost reductions. Words such as "believe", "anticipate", "expect", "intend", "seek", "will", "plan", "could", "may", "endeavour" and "project" and similar expressions are intended to identify such forward-looking statements, but are not the exclusive means of identifying such statements. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and there are risks that the predictions, forecasts, projections and other forward-looking statements will not be achieved. If one or more of these risks materialise, or should underlying assumptions prove incorrect, our actual results may differ materially from those anticipated. You should understand that a number of important factors could cause actual results to differ materially from the plans, objectives, expectations, estimates and intentions expressed in such forward-looking statements. These factors are discussed more fully in our most recent annual report under the Securities Exchange Act of 1934 on Form 20-F filed on 28 September 2010 and in other filings with the United States Securities and Exchange Commission. The list of factors discussed therein is not exhaustive; when relying on forward-looking statements to make investment decisions, you should carefully consider both these factors and other uncertainties and events. Forward-looking statements apply only as of the date on which they are made, and we do not undertake any obligation to update or revise any of them, whether as a result of new information, future events or otherwise.
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Sasol project status update

North America – the new frontier for GTL

Sasol GTL technology update

Key insights

GTL – a window of opportunity
Oryx GTL, Sasol’s GTL flagship

in operation and highly successful

- Joint venture between Qatar Petroleum (51%) and Sasol (49%)
- 32 400 bbl/d design capacity, producing ultra-low sulphur diesel, naphtha and LPG
- Stable operation (80-90% capacity utilisation)
- Instantaneous production record of 36 860 bbl/d achieved
- Production to be increased by 10% through de-bottlenecking
- Investigating the possibility of an expansion

Highly profitable venture with handsome returns to shareholders

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View from the sky
Uzbekistan GTL, Karshi, Uzbekistan

- Uzbekneftegaz, Sasol and PETRONAS established a joint venture - December 2009
- Execute joint Feasibility Study
- Targeting nominal plant capacity of 38,000 bbl/d
- Product slate target - GTL diesel, GTL kerosene and GTL naphtha
- The plant will be located near the town of Karshi in the southern part of Uzbekistan
- Gas feedstock from adjacent Shurtan Gas Chemical Complex
**Escravos GTL, Nigeria**

- Sasol, National Nigerian Petroleum Company and Chevron Nigeria Limited – under construction

- 32 400 Escravos GTL, Nigeria

- Oryx design

- Sasol’s technology and cobalt catalyst employed

- Completion expected in 2013

*Early construction*

*Early 2011*
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- GTL – a window of opportunity
Shale gas has added more than 70 years resource life based on current North American production and it is increasing every year.

(source: IHS CERA 2010)
Montney shale one of the most competitive shale plays in North America

Henry Hub gas price to achieve 10% return after tax

Source: Morgan Stanley equity research

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GTL an attractive economic proposition in North America

Crude oil prices expressed as a multiple of natural gas prices

* source: EIA
Sasol recently acquired 50% of Farrell creek and Cypress A

- One of the most prolific shale plays in North America
- All year access and excellent infrastructure
- Sasol/Talisman partnership on 108,000 total net acres land – circa 20 tcf of contingent resource
- Sasol paid US$2bn for a 50% interest and will incur ~ US$14bn development cost over 10 years
- Emerging liquids window

The feasibility study of a 96,000 bbl/d GTL facility in Canada has commenced

Source: Talisman 2011
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GTL Technology Advancements
Heat Exchange Reforming Development

• Methane Reforming is a key processing step for GTL - converts natural gas / methane into syngas feeding Sasol’s Fischer-Tropsch synthesis process

• Sasol and Haldor-Topsøe have a leading position with new technology called heat exchange reforming - Sasol operates a commercial unit in Secunda

• Sasol and Haldor-Topsøe are studying the application and accelerated commercialization of exchange reforming for new GTL ventures to significantly improve the GTL value proposition
Heat Exchange Reforming Development – Impact

- Improved efficiency

  Overall carbon efficiency: 10%
  CO$_2$ footprint intensity: 30%

- Lower TCO

  For same Oxygen requirement - GTL production capacity: 25%

  Taking advantage of technology benefits and associated economies of scale - capital cost of Syngas production: 20%
**Capacity of GTL reactors increasing**

- Develop an intensified slurry phase reactor to increase throughput without increasing shell size
- Reactor development combined with increased catalyst development

**Enhanced performance through increased volumetric conversion efficiency**

*Feasibility study*
Catalyst developments

• Better cobalt distribution allows improved catalyst activity and stability
• Improvements in alumina support
• Next generation catalyst will lower GTL operating cost by
  • Improving catalyst productivity
  • Allowing higher reactor intensities
• Catalyst Multiple Regeneration
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Sasol’s integrated business model - converting coal and gas into liquid fuels and chemical products

- Open market purchases
- Crude oil
- Gas and coal
  - Exploration and production of feedstock
    - Coal
    - Gas
    - Oil
- Syngas production
- New energy
- GTL/CTL Technology (LT or HT)
- Fuel components
- Co-products
- Chemical feedstock
- Refining and blending
- Chemical processes
- Marketing of products
- Third party producer
- Chemical feedstock
Sasol group strategy

accelerate GTL and grow upstream business

Foundation:
- Develop and empower our people
- Continuously improve and grow existing asset base
- Deliver on the South African transformation agenda

Sustainable growth:
- Accelerate GTL, focused CTL growth
- Grow related upstream business
- Grow technological lead
- Grow chemicals based on feedstock and/or technology advantage
- Develop and grow new energy

Definition of victory:
Grow stakeholder value sustainably
Sasol - a truly integrated company

Sasol Limited

South African energy cluster
- Sasol Mining
- Sasol Synfuels
- Sasol Gas
- Sasol Oil

International energy cluster
- Sasol Petroleum International
- Sasol Synfuels International

Chemicals cluster
- Sasol Olefins & Surfactants
- Sasol Polymers
- Sasol Solvents

Specialist services
- Sasol Technology
- Sasol Financing
Value adding expansion potential

GTL

Methane
- Gas Reforming
- Ammonia
- Methanol

Gas Field
- Gas Separation
  - Ethane, LPG and Condensate
  - Cracker
    - Ethylene
      - Diesel and Kerosene
      - Naphtha and LPG

- Propylene
  - C10-C13 Paraffin
  - Wax Products
  - FT Base Oils
  - Urea
  - Methanol and Methanol to Olefins
  - Polyethylene
  - Polypropylene
  - Solvents
  - Other (C4 stream, pyrolysis gas)

(C4 stream, pyrolysis gas)
GTL fuel finding widespread application

Demonstration of first passenger flights in September 2010 on fully synthetic jet fuel

In 2006, a Toyota Hilux Raider, drove from Johannesburg to Qatar on GTL diesel only.

The US airforce has tested GTL/CTL fuel in B-52s and B-1Bs.

The oil from the Toyota fuelled by GTL diesel compared to the oil from the Toyota running on normal diesel after the GTL challenge.

On 1 Feb 2008, an Airbus A380 flew on GTL fuel.
Leading edge innovation remains key

Sasol has three R&D centers located in South Africa, the Netherlands and Scotland

R&D facilities employ over 600 people with the largest concentration of PhD graduates (120) outside of the universities in the southern hemisphere

In both the HTFT and LTFT environments, Sasol has developed new generations of FT reactor technology

Budget (2011/2012) - ~ R 1 billion (US$ 142 million)
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GTL – a window of opportunity
GTL – A window of opportunity?
Sasol’s synfuels plant in Secunda

Produced more than 1.6 billion barrels of high quality fuels from coal and gas
Oryx GTL – A reality!

Operation in Qatar

GTL construction in Qatar

Reactor transport from Japan
GTL – A first of a kind in North America

- Leading edge, commercial technology that can be implemented immediately
- Energy diversity and security
- Integrated value chain opportunities and synergies (upstream and chemicals)
- Flexibility in transportation fuels industry
  - Fungible products that do not rely on complex contractual chains
  - Commercial alternative to conventional production of diesel and jet fuel
  - Superior quality fuels to meet stringent specifications (Euro 5)
- Environmental footprint on par with modern, efficient petroleum refining

A value adding alternative to unlock natural gas resources
GTL fuel – a world class product

- Colourless, clean burning fuel for use in diesel and jet engines
- High cetane number, virtually sulphur and aromatics free
- Convenient and easy to use
- Can be used “pure” or as blend with conventional diesel
- Naphtha a diluent for oil sands bitumen

- Compatible with existing engine technology and distribution infrastructure
- Enables the development of new generation internal combustion engine technologies with improved engine efficiency and further reduction of vehicle pollutant emissions
- Meets Euro 5 specifications

![Graph showing emissions performance of GTL diesel](image)
Economic growth for all stakeholders

A GTL facility in North America has the potential to create significant macroeconomic benefits in the form of:

- Direct employment of more than 500 people
- Employment of more than 5000 people (at peak) during the construction phase
- Direct capital investment of US$ billions
- Increase in economic growth (GDP)
- Increased fiscal revenue
- Technically proven gas commercialisation alternative

A GTL Industry could be a significant contributor to national and state economies

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Thank You

Mike Nel, General Manager, Downstream, Sasol New Business Development
(mike.nel@sasol.com)