TECHNOLOGY DEVELOPMENT FOR SHELL COAL GASIIFICATION

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DEFINITIONS AND CAUTIONARY NOTE

Resources: Our use of the term “resources” in this announcement includes quantities of oil and gas not yet classified as Securities and Exchange Commission of the United States ("SEC") proved oil and gas reserves or SEC proven mining reserves. Resources are consistent with the Society of Petroleum Engineers 2P and 2C definitions.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this announcement “Shell”, “Shell Group” and “Royal Dutch Shell” are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies.

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This announcement contains forward looking statements concerning the financial condition, results of operations and businesses of Shell and the Shell Group. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Shell and the Shell Group to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward looking statements are identified by their use of terms and phrases such as “anticipate”, “believe”, “could”, “estimate”, “expect”, “goals”, “intend”, “may”, “objectives”, “outlook”, “plan”, “probably”, “project”, “risks”, “seek”, “should”, “target”, “will” and similar terms and phrases. There are a number of factors that could affect the future operations of Shell and the Shell Group and could cause those results to differ materially from those expressed in the forward looking statements included in this announcement, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell’s products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. All forward looking statements contained in this announcement are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward looking statements. Additional factors that may affect future results are contained in Shell’s 20-F for the year ended 31 December 2011 (available at www.shell.com/investor and www.sec.gov ). These factors also should be considered by the reader. Each forward looking statement speaks only as of the date of this announcement, 21 May 2012. Neither Shell nor any of its subsidiaries nor the Shell Group undertake any obligation to publicly update or revise any forward looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward looking statements contained in this announcement.

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SCGP line-up with SGC offers high efficiency, but has a high Capex
SCGP - Proven technology on an ever-increasing scale

- World Wide 20 Running Plants
- With Cumulative Coal Intake of > 47000 t/d
- Syngas production for Ammonia, Methanol, Hydrogen

- 1976 Pilot unit Amsterdam, Netherlands
- 1978 Demonstration unit Harburg, Germany
- 1987 SCGP-1 Houston, USA
- 1993 NUON IGCC Buggenum, Netherlands
- 2006 Largest Chinese licence

7,500 t/d licensed, a further 7,500 t/d considered

Cumulative Coal Intake of > 47000 t/d
Average technology reliability Rt for all Chinese SCGP clients that started up

% of time lost due to SCGP outage

STeadily improving performance
First step in CAPEX reduction and further widening feedstock flexibility by replacing syngas cooler with a mature, ‘Industrial Standard’ water quench technology, yet keeping the SCGP benefits of high throughput with multiple burners, high availability and low maintenance costs.
Extensive research to come to a water quench design
SCGP line-up with WQ and wet fly ash removal replacing the dry solids removal unit
The evolution to a bottom flow water quench

A further simplification of the SCGP design: no gas quench, less steel, so even lower CAPEX, yet keeping successful membrane wall, dry feed & multiple burners.
Hybrid: side-fired, membrane wall, bottom flow water quench

- Side-fired multiple burner(s), dry feed → Proven in SCGP operation
- Membrane wall (long lifetime) → Proven in SCGP operation
- Bottom water quench → Eliminate fouling risks in SCGP, wider coal suitability
- Slag handling system → Proven in SCGP operation
Several patent applications have been filed on the gasifier and quench design.

BDEP was finished in short time, in a joint effort between Shell and Wison Engineering Shanghai.

Detailed engineering and procurement are on-going.

Construction has started at the Chemical Industry Park in Nanjing.
CONCLUSION

Shell Coal Gasification Process is fully proven technology (~25 licenses worldwide) offering high thermal efficiency, high reliability, large-scale and feedstock flexibility.

Technology Pathway to reduce CAPEX:
- SCGP TOP Water Quench – Replacing syngas cooler with Water Quench
- Hybrid Bottom Water Quench – Process Intensification compared to SCGP

Syngas cooler technology and water quench technology will have its application depending on:
- Economic benefits of HP/MP steam
- Efficiency requirements (steam + syngas)
- Available coal quality
- End product (chemicals, H2, SNG, power)