BG GROUP

2013 Strategy Update 14 May 2013

Deepsea Metro I drill ship, Tanzania

l'h and

METRO

### Welcome

Andrew Gould Chairman



Methane Shirley Elisabeth LNG vessel

### Legal notice

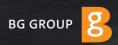
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### Introduction

Chris Finlayson Chief Executive



Cidade de Paraty, FPSO 3

Introduction

BG Group: strengths to build on

- Two highly distinctive capabilities
  - World class exploration & unique LNG model
- Excellent growth assets to develop
- Strong growth in demand for gas and LNG
- Big enough to explore frontiers; small enough to be commercially agile
- Talented people



Introduction

### What we will do differently

Focus on early stage origination, discovery & development Invest \$1.6-1.8 bn in exploration per year

More active portfolio management to accelerate value delivery

Prioritise value over production

Transparent milestones & greater asset disclosure Simple organisation & clear personal accountability



Introduction

Delivering shareholder value Strong growth in E&P and LNG volumes

Proportion of production with cash margins > \$50/boe to triple over next 5 years

Earnings to grow faster than production

Capital expenditure to fall to \$8-\$10bn pa from 2015

Monetise via production or sale up to 50% of discovered resources in 10 years

Positive free cash flow from 2015 & increasing return on capital employed

Return cash to shareholders in medium term



Introduction

### Agenda

How we create value How we will deliver value What this strategy delivers



How we create value



Dolphin production platform, Trinidad and Tobago

**Strategy Update** How we create value

Levers of value creation



World-class exploration

**Unique LNG business** 



How we create value

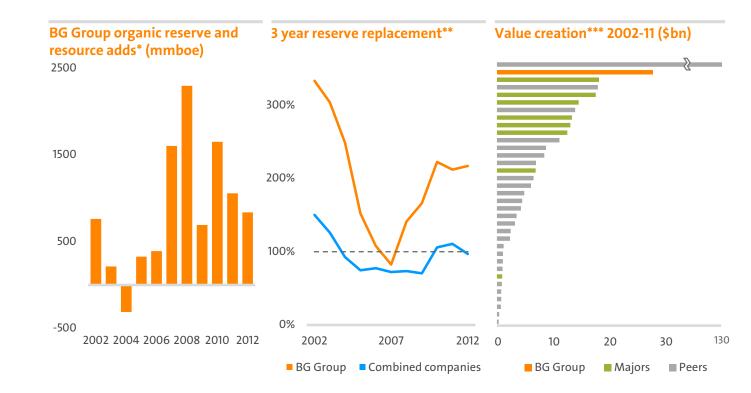
15 giant discoveries in 15 years





How we create value

Proven industry leading explorer





\* Source: BG Group

\*\* Source: Evaluate Energy, Peer Group includes Super Majors, US and European Integrated Majors

\*\*\* Source: Wood Mackenzie (2002-2011 excluding National Oil Companies, including Petrobras)

How we create value

### Basis of longterm success: exploration

Simple lean exploration organisation

Simple screening process

Entrepreneurial culture

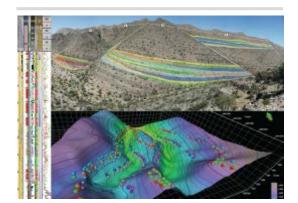
Single integrated portfolio

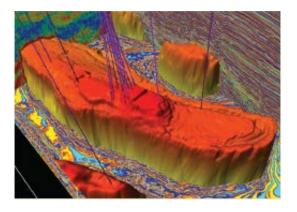


How we create value

### Wide geological technical skillset







#### Carbonates

- Proven: Brazil, Kazakhstan, Tunisia, India
- New: Kenya, Honduras

#### **Tertiary Deltas**

- Proven: Trinidad and Tobago, Egypt, Thailand
- New: Tanzania

#### HPHT

- Proven: UK, Kazakhstan
- New: China, Egypt, Norway

#### Unconventionals

- Proven: Australia (Surat), USA
- New: Australia (Bowen deep gas sands, Cooper shale)

How we create value

# Exploration strategy

### **Existing hubs**

- Leverage our current positions
- Maximise use of existing infrastructure
- Build on knowledge of local geology
- Extend relationships with governments and key stakeholders

### **New basins**

- Focus on finding new giant discoveries
- Employ Exploration's wide technical skillset
- Target low cost, early entry
- Leverage commercialisation skills to gain access

### Delivering

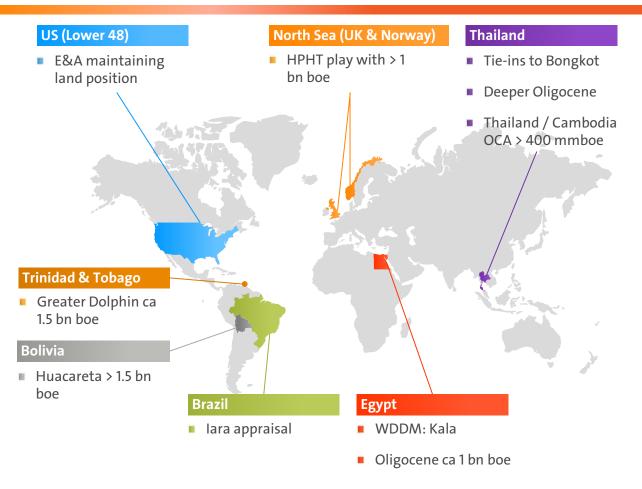
- 1 new material opportunity on average each year
- 0.5-1.0 bn boe pa risked resource addition





How we create value

### An extensive portfolio of existing hubs





How we create value

#### Year of entry:

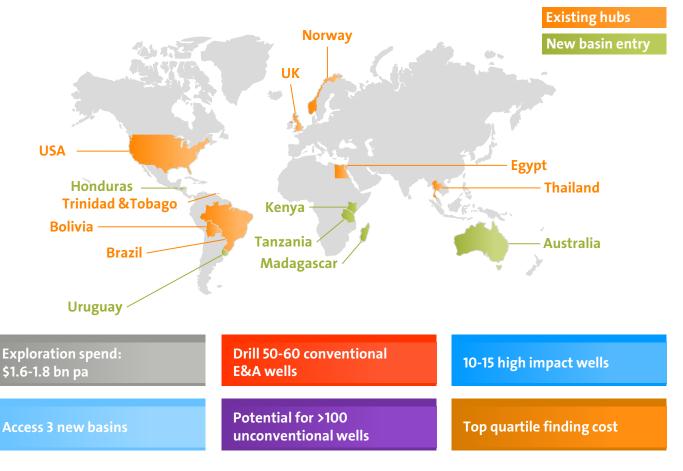
# Exploring & appraising new basins

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2008/09	2010	2011	2012	2013
Australia	Tanzania	Kenya	Uruguay	Honduras
<ul> <li>Drilled over 40 Bowen CSG wells</li> <li>Drilled 4 Bowen deep gas sands wells</li> <li>Entered Cooper Basin shale &amp; TGS play</li> <li>Added &gt; 10 tcf discovered resource across assets</li> </ul>	<ul> <li>Acquired over 10000 sq km 3D seismic</li> <li>Drilled 9 E&amp;A wells with 100% success</li> <li>Built resource base up to ca 10 tcf gross</li> </ul>	<ul> <li>Acquired over 4500 sq km 3D + 2D seismic</li> <li>First well early 2014</li> <li>Potential &gt; 1 bn boe</li> </ul>	<ul> <li>BG's largest operated 3D seismic: 13000 sq km</li> <li>Phase 1: 9000 sq km 80% complete</li> <li>First well in 2016</li> <li>Potential &gt; 1 bn boe</li> </ul>	<ul> <li>Operating contract signed</li> <li>Gradiometry survey in 1st year of licence</li> <li>3D seismic in 2014 &amp; 15</li> <li>Potential &gt; 1 bn boe</li> </ul>
Potential > 15 tcf				

How we create value

### Exploration 2013-2015 activity



### BG Group's LNG business



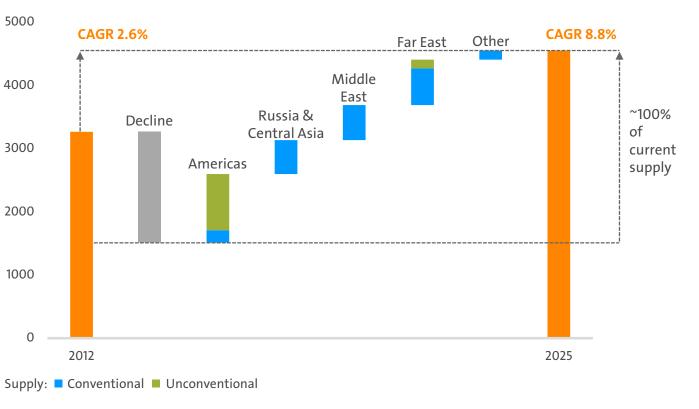
💙 QCLNG Terminal, Curtis Island, Australia 🔤

How we create value

**Global gas supply (bcma)** 

### Strong demand for gas

**BG GROUP** 

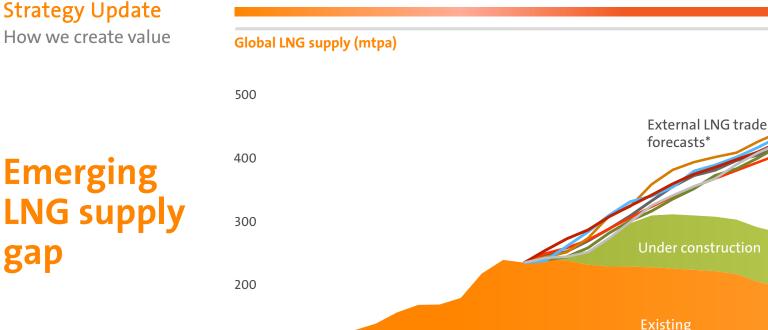


Source: BG Group interpretation of Wood Mackenzie data (Feb 2013)



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Sources Supply: BG Group interpretation of Wood Mackenzie data (2013 Q1) \* Trade: various research house views; Wood Mackenzie, PFC Energy, IHS CERA, Poten & Partners, PIRA, FACTS Global Energy, Gas Strategies

2010

2015

2020

2005

Supply gap:

~150 mtpa

Supply: existing and under construction

2025

How we create value

BG has distinctive skills for gas & LNG



#### Knowledge, skills and capability across whole gas chain

- Identify best opportunities
- Build strong relationships with governments and customers
- Develop commercially innovative solutions
- Unlock equity and 3rd-party resources to connect them to markets



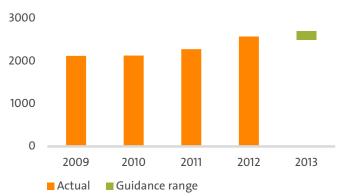
How we create value

### BG Group's LNG business

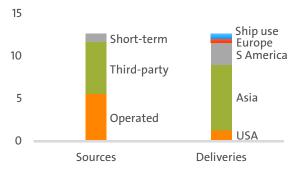




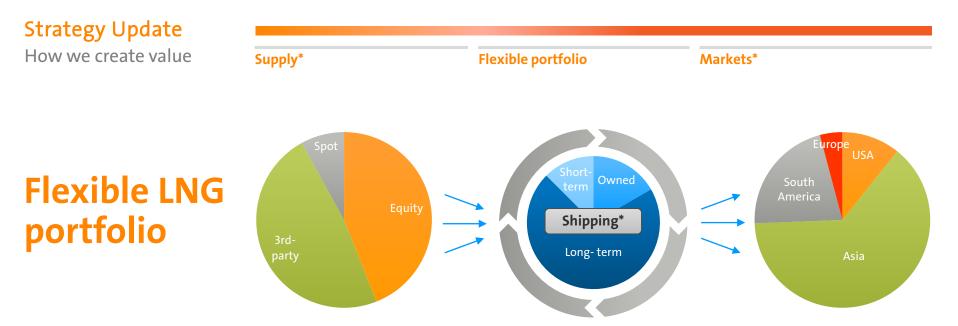
LNG Shipping & Marketing operating profit (\$m)



#### 2012 LNG sources & destinations (mtpa)







- Flexibility to supply markets from multiple sources
- Optimises margins for BG
- Underpinned by a fleet of 25\* LNG ships
- Differentiates BG in LNG industry
- \* 2012 data



How we create value

Using our flexibility to grow



#### Markets pull supply

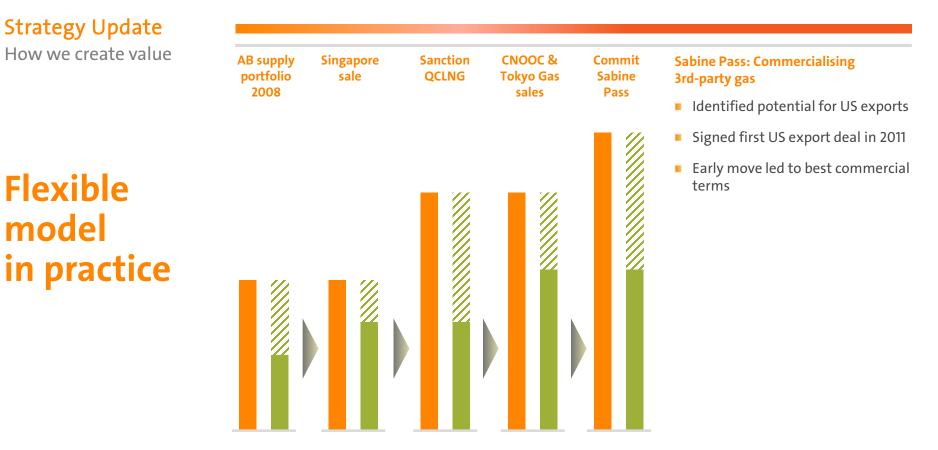
- Pre-capture new markets
- Marketing advantage (de-risks project start-up for buyers)
- Allows BG to build market & supply in parallel
- Continuous opportunity replenishment

- Customer relationships give confidence to:
  - Invest in supply expansions
  - Commit to long-term purchase agreements
- Quickly capture market opportunities





\* Source: company press releases

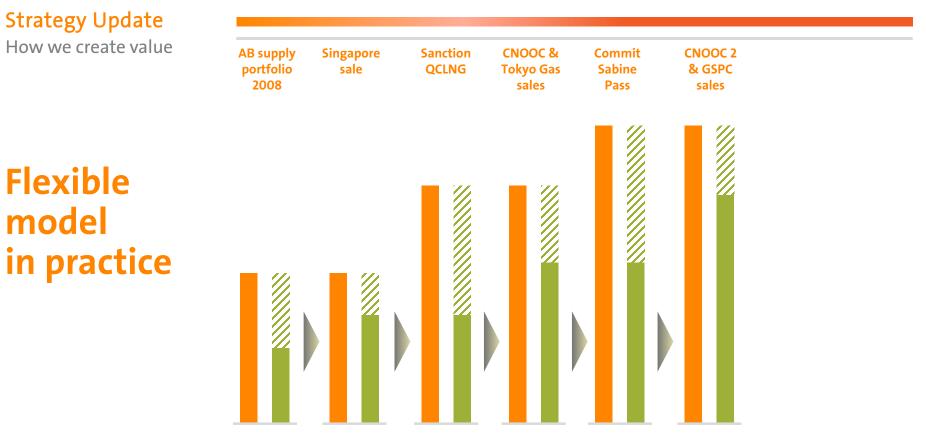


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Contracted

Supply





Contracted 💋 Uncontracted



Supply

How we create value

**Multiple** new LNG supply options





- No BG capital in pipeline
- In discussions with potential partners
- < 50% interest in project</p>
- Sanction unlikely before 2016

- Lake Charles: 15 mtpa
- No BG capital
- Majority BG offtake
- FEED contract awarded
- Complete FERC application: Dec 2013

#### Tanzania: ~ 10 mtpa

- BG operated blocks 1, 3 and 4
  - ~10 tcf gross resources
  - Major 2013 E&A programme
- Block 2: 10-13 tcf recoverable volume\*
- Site selection study jointly with Block 2 partners
- Project sanction: 3-4 years

#### QCLNG: 4.25 mtpa

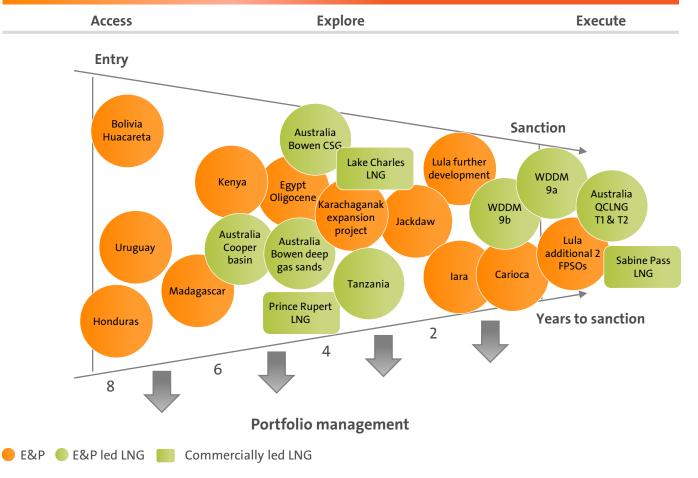
- Third train opportunity
- CNOOC option: up to 25%
- Material resource position
  - 29 tcf gross total resource \_
- 2-3 year E&A programme
  - Identify best options



\* Based on public announcement by Statoil

How we create value

### Strong pipeline of future projects



## How we will deliver value



Miskar production platform, Tunisia

How we will deliver value

Levers of value creation

How we create value

How we will deliver value What this strategy delivers

Active portfolio management

Capability in projects & operations

Lean & agile organisation



How we will deliver value

### Active portfolio management to monetise value



#### Our goal

- Realise value from E&P and LNG assets
- Balanced portfolio of 10-15 high quality assets
- Accelerate growth

#### Track record

- Exited non-core T&D and power businesses
- Release \$8 bn capital by end 2013
- Signed deal with CNOOC, deepened strategic partnership

#### Focused portfolio of 10-15 high quality assets

Growth assets eg Brazil & QCLNG Optimisation opportunities

Producing assets with high return prospects

eg Trinidad & Tobago

Mature assets Strong cash flow

eg Buzzard

How we will deliver value

Disciplined capital allocation

- Disciplined capital allocation is key to successful portfolio management
- Rich opportunity set
- More projects than investment capacity
- Investment decisions to maximise capital efficiency
  - Maximise NPV per \$ of investment
  - Which projects to participate in, and
  - What equity level to invest
- Delivers greatest value from capital investment



How we will deliver value

Value creation across the asset life-cycle





How we will deliver value

Accelerating resource monetisation



- Deliver value to shareholders quicker
- Accelerate monetisation of existing resources
  - Strong production growth: ~25% of discovered resources
  - Active portfolio management: increase closer to 50%
- Resource additions
  - Primarily through drill-bit
  - Balance with rate of resource monetisation
- Higher investment in exploration & business development
- Prioritising value over production



How we will deliver value

Project execution & operations: key to value delivery Deliver value from opportunities & ensure reliable production

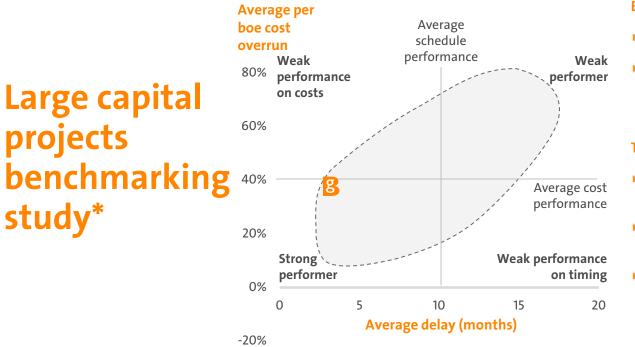
Influence with partners

Capability spans across project types & size

Attractive partner for governments & key stakeholders



How we will deliver value



#### **Benchmarking**

- Strong schedule performance
- Cost performance comparable with peers – needs improvement

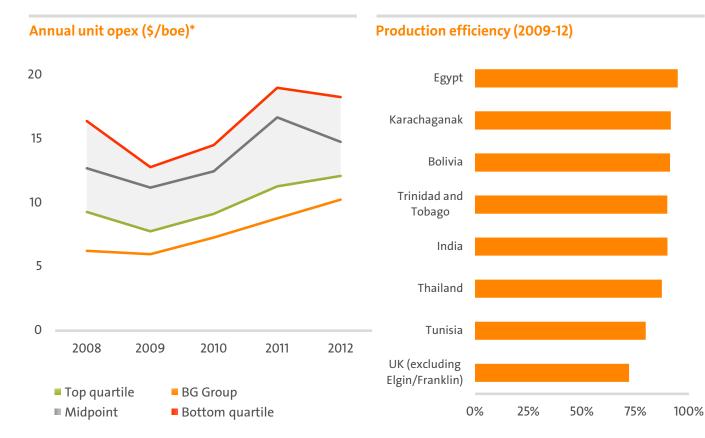
#### Three initiatives to improve performance

- Increased emphasis on development planning
- Centralised Global Capital Projects organisation
- Strategic alliances with service companies



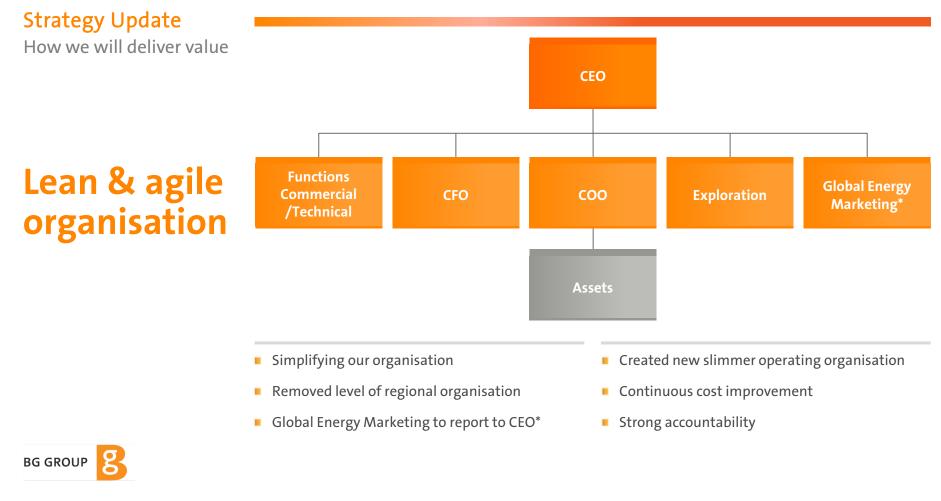
\* Study completed by Wood Mackenzie using capital costs and timeline data from Wood Mackenzie's Pathfinder Research Product (included in study - projects that came on stream or received FID from 2003 to 2012, project capex of over \$1 bn, performance based on operated projects only)

How we will deliver value



Proven operational capability

\* Source: Evaluate Energy, Peer Group includes Super Majors, US and European Integrated Majors

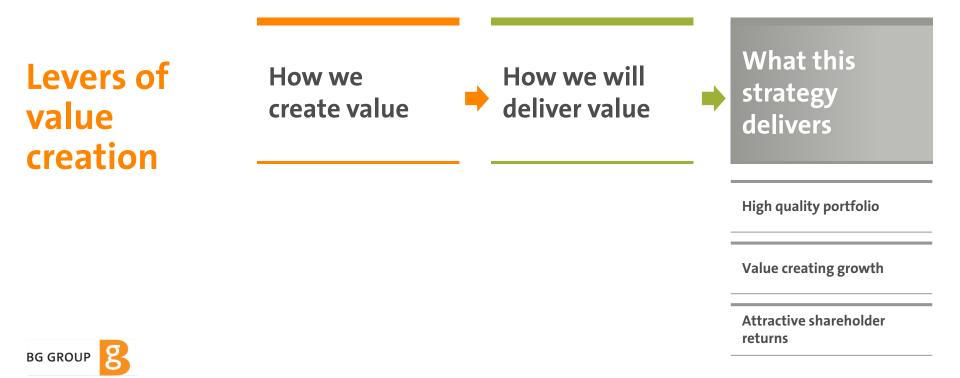


What we expect this strategy to deliver



Karachaganak processing complex, Kazakhstan

What this strategy delivers



What this strategy delivers

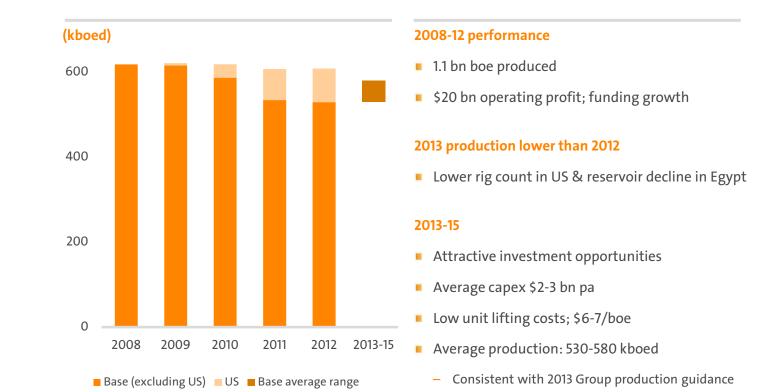
Increased portfolio outlook & disclosure

Base assets & growth projects	How portfolio will evolve	Group level guidance
Outlook for production	Cash margins/boe as % of total production	12 month ahead production and LNG operating profit
Investment levels	Average Group capex	Capex two years ahead
Key milestones	2015: E&P & LNG volume range	No Group guidance beyond 2015



What this strategy delivers

Base E&P assets\*





\* Bolivia, Egypt, India, Kazakhstan, Norway, Thailand, Trinidad, Tunisia, UK & USA Future volumes at reference conditions (see Appendix)

What this strategy delivers

#### Onstream dates

# Base assets production milestones

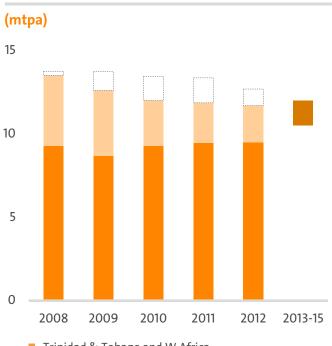


Margarita Phase 2

What this strategy delivers

Existing LNG sources





- Trinidad & Tobago and W Africa
- Egypt
- Short-term purchases
- Average range

Future volumes at reference conditions (see Appendix)

#### 2008-12 performance

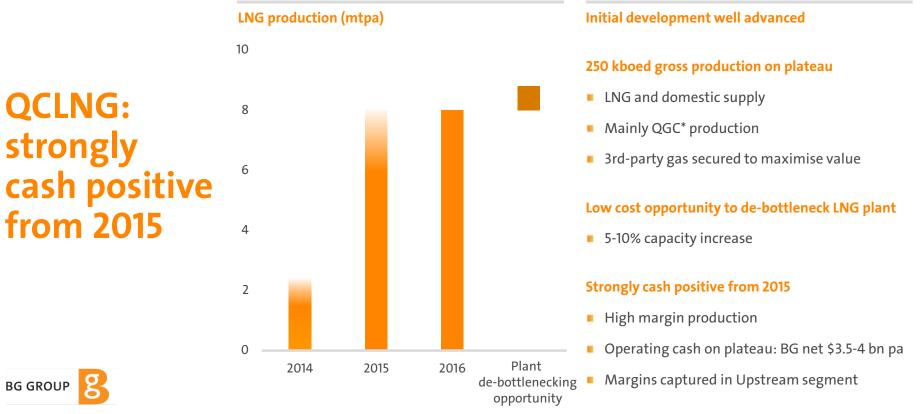
- 67 million tonnes lifted
- \$12 bn operating profit

#### 2013-15

- Trinidad & Tobago and W Africa
  - 9.2 mtpa contracted offtake
- Egypt offtake dependent on reservoir performance & future investment
- Total average long-term LNG offtake:
  - 10.5-12 mtpa
- Short-term cargoes dependent on prevailing market conditions

**BG GROUP** 

What this strategy delivers



\* BG Group equity: 74%

Future volumes at reference conditions (see Appendix)

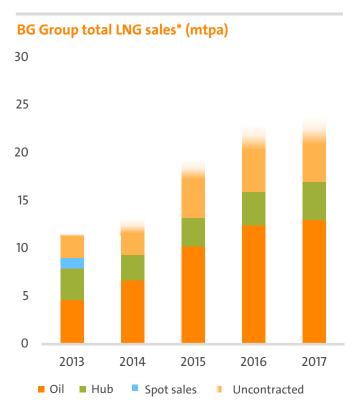
What this strategy delivers



\* At Bloomberg HH consensus price (April 15, 2013), \$4.91/mmbtu in 2016

What this strategy delivers

LNG sales: growing oil exposure

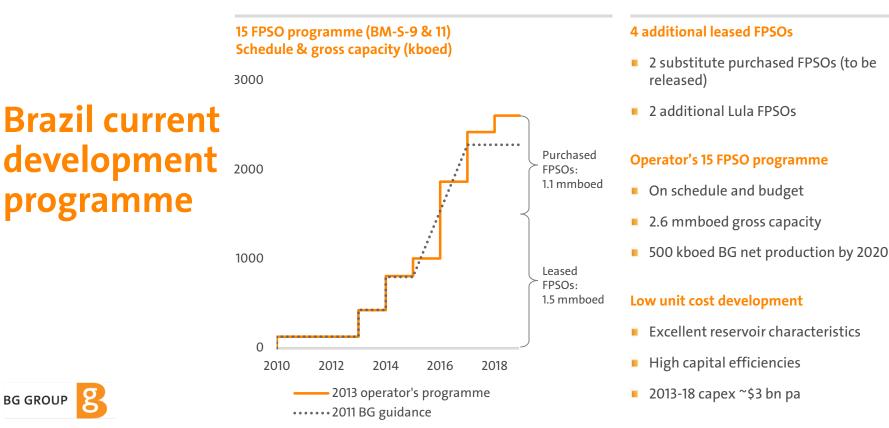


- Robust portfolio of high value sales contracts
- Strong position in oil indexed contracts
  - High value Asian markets
- Maintain exposure to HH/oil margin
- Uncontracted volumes to maintain strategic flexibility



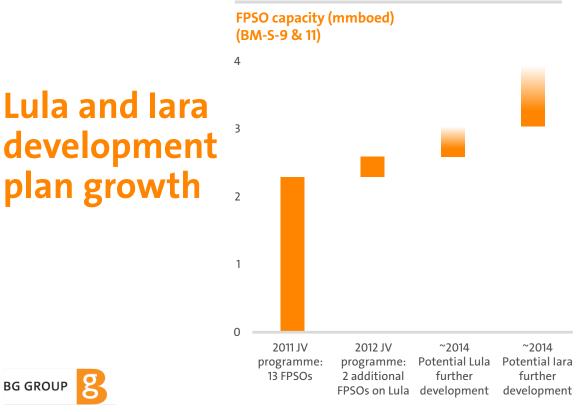
\* Includes existing long term supplies QCLNG T1 & T2 and Sabine Pass Future volumes at reference conditions (see Appendix)

What this strategy delivers





What this strategy delivers



#### Lula: potential further development

- Studies on-going for additional FPSOs
- Northern & southern wells and EWT data in 2013/14

#### Iara: potential further development

- 2 FPSOs in current programme
- Major 2013/14 appraisal activity

#### Full development (BM-S-9&11)

- BG net production > 600\* kboed from full FPSO programme at current equity levels
- Further development phases on all fields after **FPSO** deployment
  - Accelerate production
  - Increase recovery



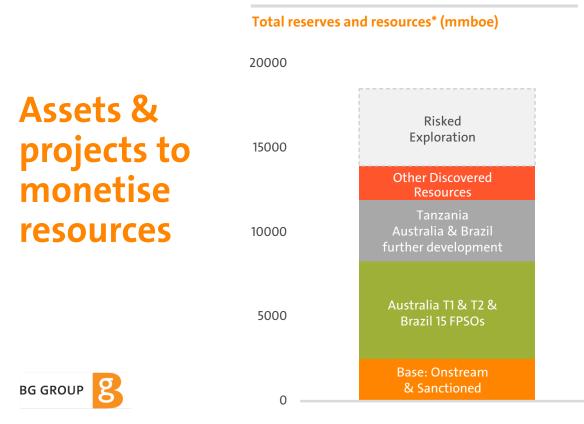
What this strategy delivers

# **Growth milestones**

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	2013	2014	2015	2016	2017	2018
Current programme						
Brazil						
Cumulative FPSOs onstream	3	5	6	11	14	15
QCLNG						
Train 1 (4.25 mtpa)		LI	NG Sales			
Train 2 (4.25 mtpa)			LNG Sales			
Sabine Pass (5.5 mtpa)			LN	IG Sales		
Future growth options						
lara	• App	raisal ———	,			
Lula	<ul> <li>Further FPS</li> </ul>	Os decision 🔶				
Prince Rupert LNG (~14 mtpa)	← Plant & p	ipeline pre-FEE	D & FEED			
L Charles LNG (15 mtpa)		ermitting —				
Tanzania LNG (~10 mtpa)	♦Further E&A					
QCLNG Train 3 (4.25 mtpa)	*	Further E&A				

What this strategy delivers



- Strong discovered resource base of 14 bn boe
- Current programme produces 8 bn boe\*\*
- Defined future projects produces 4 bn boe\*\*
- Assets & defined projects monetise about 90% of current discovered resource base

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What this strategy delivers

Strong financial outlook: current programme\*



#### 2015 volumes at current equity levels:

- Group E&P production: 775-825 kboed
- Total LNG offtake: 17-20 mtpa

#### **Financial outlook**

- Cash margins of > \$50/boe to triple to over two-thirds of total production
- High margins in Brazil & Australia
- Earnings to grow faster than production

#### Lower capex

- 2013-14: ~\$12 bn pa
- 2015-16: \$8-10 bn pa

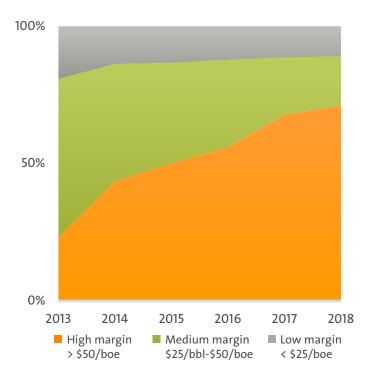
#### Increasing return on capital employed

- Higher % of capital in production
- \* Includes Base assets, Brazil 15 FPSO programme, QCLNG T1/T2 and Sabine Pass.

\*\* Current programme: Includes both Upstream & equity LNG marketing margins

At 2013 reference conditions (see Appendix)

#### % of production by EBITDA\*\*/boe

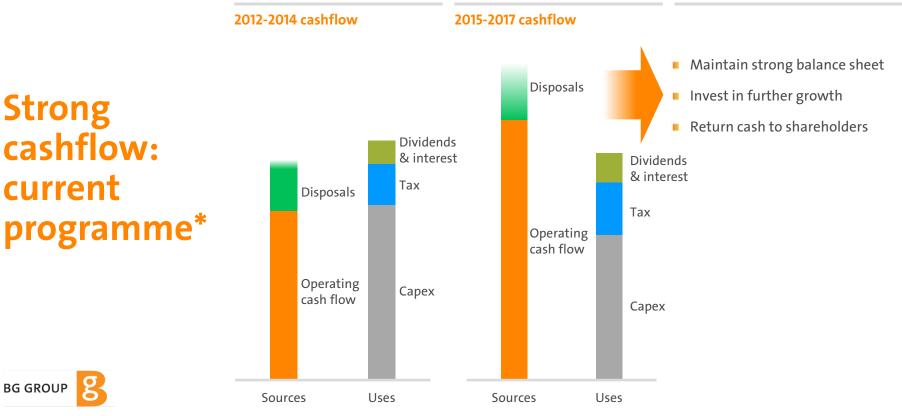


Strong

current

**BG GROUP** 

What this strategy delivers



\* Includes Base assets, Brazil 15 FPSO programme, QCLNG T1/T2 and Sabine Pass At 2013 reference conditions (see Appendix)

What this strategy delivers

Capital and funding priorities

# **Cash from operations and portfolio rationalisation**

+	+	-
Safe & reliable operations	Maintain strong balance sheet	Grow dividends
Grow exploration investment	Long-term mid single A rating	Return cash to shareholders
Fund projects with high capital efficiency		



# Conclusions



Dragon LNG import terminal, UK

Brangen alliansen an



Conclusions

# **BG Group** High growth E&P & LNG company

# **Our Strategy**

World class exploration & unique LNG business Actively manage our portfolio to reinvest in growth

# Prioritise value over production

Focused portfolio of 10-15 high quality assets

Focus on areas where we have competitive advantage Lean & agile organisation



Conclusions

What we expect this strategy to deliver Strong growth in E&P and LNG volumes

Proportion of production with cash margins > \$50/boe to triple over next 5 years

Earnings to grow faster than production

Capital expenditure to fall to \$8-\$10bn pa from 2015

Monetise via production or sale up to 50% of discovered resources in 10 years

Positive free cash flow from 2015 & increasing return on capital employed

Return cash to shareholders in medium term



BG GROUP

2013 Strategy Update 14 May 2013

Deepsea Metro I drill ship, Tanzania

l'h and

METRO

#### **Reference Conditions**

- Brent Oil price (real 2013 \$): \$100/bbl
- US Henry Hub (all values real 2013 \$): 2013: \$3.50/mmbtu; 2014: \$4.00/mmbtu; 2015 onwards: \$4.25/mmbtu
- US/UK exchange rates of \$1.6:£1
- US/AUD exchange rates of \$1:\$A1
- US/BRL exchange rates of \$1:BRL1.90
- Prepared under International Financial Reporting Standards
- All production includes fuel gas

#### Principal Risks

- Major recession, significant political upheaval or terrorist attacks in the major markets in which we operate
- Failure to ensure the safe and secure operation of our assets worldwide
- Operational performance including shut-down, asset integrity, natural hazards, reservoir and well performance
- Implementation risk, being the challenges associated with delivering capital intensive projects on time and on budget
- Commodity risk, being the risk of significant fluctuation in oil and/or gas prices from those assumed
- Foreign exchange risk, exchange rates maybe being significantly different to those assumed
- Interest rate, liquidity and credit risk
- Technical, environmental, commercial, economic, legal, litigation, regulatory, political and country risk
- Risks associated with successful discoveries, estimation, appraisal and development of reserves

For a detailed discussion of these and other risk factors, please refer to the Principal risks and uncertainties included in BG Group's Annual Report and Accounts .

Actual performance could differ materially from that shown. Accordingly, no assurances can be given that such performance will be achieved.





# Glossary

£	British pound	Εð
\$	United States dollar	EE
\$A	Australian dollar	
<	Less than	eg
>	Greater than	E١
~	Approximately	FE
AB	Atlantic Basin	FE
AUD	Australian dollar	FI
bbl	Barrel of oil	FF
bcma	Billion cubic meters per annum	-
bn	Billion	G
boe	Barrel of oil equivalent	H
BRL	Brazilian Real	Н
са	circa	٦/۲
CAGR	Compound annual growth rate	kł
Capex	Capital expenditure	L
CNOOC	China National Offshore Oil Corporation	Lľ
CSG	Coal seam gas	m
DES	Delivered ex-ship	m
E&A	Exploration and appraisal	m

E&P	Exploration and production
EBITDA	Earnings before interest, taxes, depreciation and amortisation
eg	for example
EWT	Extended well test
FEED	Front end engineering design
FERC	Federal Energy Regulatory Commission
FID	Final investment decision
FPSO	Floating production storage and offloading unit
GSPC	Gujarat State Petroleum Corporation Ltd
HH	Henry Hub
HPHT	High pressure high temperature
JV	Joint venture
kboed	Thousand barrels of oil equivalent per day
L Charles	Lake Charles
LNG	Liquefied natural gas
m	Million
mmboe	Million barrels of oil equivalent
mmboed	Million barrels of oil equivalent per day



Glossary

mmbtu	Million British thermal units
mtpa	Million tonnes per annum
NPV	Net present value
OCA	Overlapping Claims Area
Opex	Operating expenditure
ра	per annum
QCLNG	Queensland Curtis LNG
QGC	QGC Pty Limited
S America	South America
sq km	Square kilometres
T&D	Transmission & Distribution
T1	Train 1
T2	Train 2
tcf	Trillion cubic feet
TGS	Tight gas sands
UK	United Kingdom
US or USA	United States of America
W Africa	Western Africa
WDDM	West Delta Deep Marine

