Finding and development costs

1994 -1998

Shell
Texaco
Total
BP Amoco
Chevron
Conoco
Exxon
Mobil

1996 -1998

$/boe

5 4 3 2 1 0

0 1 2 3 4 5

$/boe

Source: Schroders June 1999: top 8 companies on basis of 1994 -1998 ranking

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NOTES:

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Drilling the Limit TM
US Deepwater GoM exploration drilling

NOTES:
EP cost improvements vs 1998
On track to meet cost improvement target

- Global Procurement
- Staff reductions
- Global Deepwater
- Global Technology
- Local cost/value initiatives
- “Realising the Limit”

NOTES:

REDACTED
UK Shearwater Offshore Project
Most challenging North Sea project

Heaviest single lift offshore ever!
(11,600 tonnes)

March 2003

December 1999

NOTES:

REDACTED
Iran - Soroosh and Nowrooz linked development

- Linked development saves customer money
- Reserves 1.1 bln bbl to be developed
- Development costs $800 mln
- Deal signed November 1999
  1st production in 2001 - 60 kb/d
  Full production in 2003 - 190 kb/d

NOTES:

REDACTED
Canada - Athabasca Oil Sands Project

Muskeg River mine

155,000 b/d
Corridor pipeline

Blendstock
29,000 b/d

Hydrogen

Scotford upgrader

190,000 b/d

93,000 b/d
30,000 b/d
67,000 b/d

Scotford refinery
Sarnia refinery
3rd party refineries

- Proven reserves 1 bln bbl
  (Shell Canada share 600 mln bbl)

- Shell Canada investment $1.7 bln

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NOTES:

REDACTED
Nigeria - Bonga going ahead

- Reserves 0.6 bln bbl
- Full development costs $2.7 bln
- First oil Q2 2003; production 200 kb/d by end 2004
- Associated gas piped to Bonny NLNG

NOTES:

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Commercialisation of technology
"Twister"

- No chemicals
- No moving parts
- Much smaller footprint
- Proven market demand

NOTES:
EP Summary

- Lowest finding and development costs
- Operating costs 10% lower than 1998
- Cost improvement $1.1 bn (1998 - 2001)
- Exploration expense saving $0.7 bn (1998 - 1999)
- Workforce reduction 14% (1998-2000)

Growth focused in Deepwater, MRH's, Gas
- 5% a.a.i. oil+gas growth
- Active divestment management
- Portfolio robust at $10

Capital Discipline

- 25% drilling cost savings so far, applying 'Drilling the Limit™'
- Capital investment c. $6 bn pa (2000-2002)

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NOTES:

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### Gas & Power: Key facts

- **Capital Employed**: US$6 billion
- **Operations in**: 20 countries
- **Development activities in a further**: 13 countries
- **LNG Plant capacity (Shell equity share)**
  - operational (incl. NLNG 1st train): 6.9 Mtpa
  - under construction: 4.5 Mtpa
- **Power Generation capacity (Shell equity share)**
  - operational: 0.5 GW
  - under construction: 2.0 GW
  - under contract/mandated: 2.5 GW

---

**NOTES:**

**REDACTED**
What we have achieved

To date in 1999
- Sale of LNG from Oman (1.6 Mtpa 100%) to Dabhol Power
  - first LNG contract to India and first contract with an independent power producer
- Launched Nigeria LNG train 3 & Malaysia LNG Tiga
- Comgas purchase (with BG)
- Enterprise JV for NGL business (US)
- Sale of Transok (US)
- Power developments (various)
- Established InterGen NA
- PSC signed for Changbei (China)
- Nigeria LNG first cargoes delivered

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NOTES:
Strategic themes

Exploration & Production

Monetising Upstream Gas
"Bringing equity gas to market"

Key Market Developments
"Developing new gas markets"

Gas- Midstream ⇒ Retail

Customer Solutions
"Providing solutions to energy customers"

Power ⇒ Retail

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and the commercial development of Gas-to-Liquids technology

NOTES:

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DC 00032
Strategic themes: Regional application

Monetising Upstream Gas
"Bringing equity gas to market"

Key Market Developments
"Developing new gas markets"

Customer Solutions
"Providing solutions to energy customers"

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NOTES:
Focus on capital

Actual cost at location

Cost at Middle East reference location

LNG Plant Capex
- Better and simpler equipment
- Technical optimisation
- Minimum site size
- Lifecycle cost analysis

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NOTES:
GP Summary

- Continued action on US portfolio
- 3 mtpa LNG volume increase (Shell share) with NLNG and ONLG onstream - end 2001
- SMDS re-commissioned 2000
- NLNG3 and MLNG Tiga committed
- 4.5 GW additional power generation capacity under construction/mandated
- Capital employed increases to $7 bln in 2001
- Investment $0.8 bln pa
- Lowest unit capital cost LNG project (OLNG)

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NOTES:
**Oil Products portfolio**

*Annualised 1999/9mths***

**Focus for Further Improvement:**

- Europe retail
- Lower refinery exposure
- USA
- Japan

**NOTES:**

**REDACTED**
Structural cost reduction

... plus $400mln from US Alliances

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NOTES:

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Refining: operational excellence applied to an improving portfolio

Refinery Availability

<table>
<thead>
<tr>
<th>Year</th>
<th>Shell Availability</th>
<th>Leaders Availability</th>
<th>Average Availability</th>
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<tr>
<td>1994</td>
<td>95</td>
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Manpower Intensity

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<thead>
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<th>Year</th>
<th>Equivalent Personnel/100k EDC</th>
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<td>1994</td>
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<tr>
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Energy Intensity Index

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<th>Year</th>
<th>Shell Energy Intensity</th>
<th>Leaders Energy Intensity</th>
<th>Average Energy Intensity</th>
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<tr>
<td>1998</td>
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Data from 1994/1998 Solomon studies outside North America

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NOTES:

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