Norwegian experience with project status-based classification

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The Norwegian petroleum regime in a changing business environment

- Increasing maturity
- Weak regulatory framework
- Resource growth per exploration well
- Exploration costs per resource growth
- National management and control
- Market oriented policy
- Globalisation
- SDIF established 1985
- Petoro established 2001
- Degree of commercialism
The Norwegian government in oil and gas

The Norwegian Parliament
The Government

Ministry of Petroleum and Energy (MPE)
Ministry of Labour and Social Affairs (MLSA)
Ministry of Finance (MOF)
Ministry of the Environment (MOE)

Norwegian Petroleum Directorate (NPD)
Petroleum Supervisory Body (PSB)

Oil and gas companies
- Statoil (62.5%)
- Petoro (100%)
- Shell
- ExxonMobil
- ConocoPhillips
- Total
- BP
- Eni
- etc.

STATE OWNERSHIP
EXERCISING AUTHORITY

The net government cash flow from the petroleum activities

Source: Norwegian Public Accounts/National Budget
Record high financially – underlying challenges

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income after financial items</td>
<td>128 467</td>
<td>113 172</td>
</tr>
<tr>
<td>Net cash flow transferred to</td>
<td>126 213</td>
<td>99 175</td>
</tr>
<tr>
<td>the government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil and NGL production (1 000 b/d)</td>
<td>723</td>
<td>788</td>
</tr>
<tr>
<td>Gas production (mill scm/d)</td>
<td>75</td>
<td>73</td>
</tr>
<tr>
<td>Total production (1 000 boe/d)</td>
<td>1 198</td>
<td>1 244</td>
</tr>
<tr>
<td>Reserves addition (mill fat oe)</td>
<td>177</td>
<td>97</td>
</tr>
<tr>
<td>Production cost (NOK/boe)</td>
<td><strong>15</strong></td>
<td><strong>20</strong></td>
</tr>
<tr>
<td>Personell injuries (H2)</td>
<td>8,3</td>
<td>8,3</td>
</tr>
</tbody>
</table>

• 2006 – best financial result in the history of Petoro
• High oil price, high activity, pressure on resources, increasing cost of goods and services

Management company to the SDFI

Facts:
• 112 production licenses
• 16 partnerships/companies related to transport & terminals
• >37 fields in production
• 2 large fields under development

Characteristics:
• NCS only
• Partner – not operator
• Statoil markets oil and gas
• Large share in licenses
• Long term perspective
• 60 employees
### Maximising SDFI value

<table>
<thead>
<tr>
<th></th>
<th>Value Creation 2005</th>
<th>Impact of Changed Prices</th>
<th>End 2005 value @ YY2005</th>
<th>Start 2006 value @ 1/1/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start 2005 value @ YY05</td>
<td></td>
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<td></td>
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<tr>
<td>Cash Flows 2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>End 2005 value @ YY05</td>
<td></td>
<td></td>
<td></td>
<td>875 billion NOK</td>
</tr>
</tbody>
</table>

### Resource Classification
Important principles regarding classification

- Only recoverable volumes are classified
- Projects are classified
- The resources are classified according to maturity: Prospect -> discovery -> field -> produced volumes
- Fields and discoveries can have several projects with differing grades of maturity – thus a field/discovery can have resources in different resource classes.

**SPE/WPC/AAPG 2000**

<table>
<thead>
<tr>
<th>Resource Class</th>
<th>Category</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RESERVES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>proved</td>
<td>proved</td>
<td>proved plus</td>
</tr>
<tr>
<td></td>
<td>plus</td>
<td>probable</td>
</tr>
<tr>
<td>Contingent</td>
<td>Contingent</td>
<td>Contingent</td>
</tr>
<tr>
<td></td>
<td>resources</td>
<td>resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CONTINGENT RESOURCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low estimate</td>
<td>Best estimate</td>
<td>High estimate</td>
</tr>
<tr>
<td></td>
<td>Unrecoverable</td>
<td></td>
</tr>
<tr>
<td><strong>PROSPECTIVE RESOURCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low estimate</td>
<td>Best estimate</td>
<td>High estimate</td>
</tr>
<tr>
<td></td>
<td>Unrecoverable</td>
<td></td>
</tr>
</tbody>
</table>
Classification system for petroleum resources at the Norwegian continental shelf

- Undiscovered resources
  - 8 Prospects
  - 9 Leads and unmapped resources

- Contingent resources
  - 6 Recovery not very likely
  - 5F Recovery likely, but not clarified
  - 7F New discoveries that have not been evaluated
  - 7A Possible future measures to improve the recovery factor

- Reserves
  - 4F In the planning phase
    - 4A
  - 3F Licenses have decided to recover
    - 3A
  - 2F Approved development and operation plan
    - 2A
  - 1F In production

- Historical production
  - 0 Sold and delivered petroleum

F: First recovery
A: Additional recovery
Data Management

Why report resource estimates?

- The data collected in connection with the Norwegian National Budget is used as a basis for:
  - Norway’s oil policy
  - Norway’s economic policy
  - Norway’s environmental policy

- Legislation requires reporting annually of both produced and planned volumes
Reporting

- All operating companies reports annually, on behalf of the licensees
  - resources, forecasts for production, cost and emissions
- **Norwegian Petroleum Directorate** submits aggregated forecasts to the Ministry of Finance via the Ministry of Petroleum and Energy.

Operating companies → Norwegian Petroleum Directorate → Ministry of Petroleum and Energy

Types of Data reported to NPD

- **Resources (volume)** – Resource category 0-8
  - In-Place volumes
  - Reserves
  - Contingent resources
  - Prospective resources (prospects) within licensed areas
- **Profiles for Reserves and resources**
  - Production sales profiles
  - Oil, Gas, NGL and Condensate, including uncertainty ranges
  - Costs
  - Investments (CAPEX), Operating cost (OPEX), Tariff expenditures
- **Environmental data**
  - Emissions
    - CO2, NOx, nmVOC, CH4
  - Background data (Water production, Injection profiles)

CONSISTENCY
The petroleum resources on the Norwegian Continental Shelf

Source: NPD
Comparison of resource account on Norwegian continental shelf, 1996 vs 2006

Comparison of Resource estimate
Fields on NCS per 31.12.03

Source: NPD
Production

Forecast Norwegian Total Production

Source: NPD
Norwegian oil production forecast from 1995 compared with actual production

Source: NPD
Comparison of oil forecast 1995-2006 with actual production based on 1995 status

Source: NPD

Norwegian oil production forecast from 1995 compared with actual production

Source: NPD
Comparison of SEC –reporting (2004) and NPD estimate

- SEC reporting Hydro: 72 % of NPD reserves (RC 1-3)
- SEC reporting Statoil: 71 % of NPD reserves
- P90 reserves NPD: 73 % of the mean reserves
- Including contingent resources (RC 4-7): 122 % compared with NPD reserves

Thank you for your attention