"The Norwegian Oil Industry and Cooperation with Iran"

Deputy Minister of Petroleum and Energy
Oluf Ulseth

Norwegian Topical Luncheon at the International Oil and Gas Exhibition in Tehran 14 April 2005
Oil prices: Historical and future prices

$/barrel

2005
Estimates for Future Oil and Gas Production on the NCS

Source: MPE/NPD NB 2005
Production and Net Export of Liquids* 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>Production</th>
<th>Net Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>9.2</td>
<td>7.04</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>9.02</td>
<td>6.47</td>
</tr>
<tr>
<td>USA</td>
<td>7.62</td>
<td></td>
</tr>
<tr>
<td>Iran</td>
<td>3.96</td>
<td>2.47</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.83</td>
<td>2.1</td>
</tr>
<tr>
<td>China</td>
<td>3.49</td>
<td>2.04</td>
</tr>
<tr>
<td>Norway</td>
<td>3.19</td>
<td>2.01</td>
</tr>
<tr>
<td>Canada</td>
<td>3.08</td>
<td>2.01</td>
</tr>
<tr>
<td>Venezuela</td>
<td>2.6</td>
<td>1.76</td>
</tr>
<tr>
<td>UAE</td>
<td>2.35</td>
<td>1.51</td>
</tr>
</tbody>
</table>

Source: Petroleum Economics Ltd

* includes both crude oil and NGL
High activity at the NCS

- Oseberg 2015
- Troll 300
- Tampen 2020
- Ormen lange
- Snøhvit
- Statfjord senfase
- Satellittutbygginger
- Valhall redevelopment
Snøhvit – a New Concept for LNG Production

- Sub-sea production
- Multiphase transport > 140 km
- LNG process and shipping technology

Source: Statoil
Ormen Lange Field Development

- Complex seabed topography
- New tool for design and simulation of pipe laying operations
- A globally unique innovation

Source: Hydro
Investments on the Norwegian Continental Shelf

Bill. NOK

- 2004
- 2005

* Inkl. leting
Blocks Nominated by Two or More Companies

19 Licensing Round

Nominated Blocks in the Norwegian Sea

Nominated Blocks in the Barents Sea

Blocks nominated by 2 or more companies
Open for nomination
Licensed acreage
Seismic areas
APA blocks

Ministry of Petroleum and Energy
www.mpe.dep.no
Estimated gas production

Mill smc o.e./year

- Undiscovered gas
- Resources whose recovery is not clarified/evaluated
- Resources in the planning phase
- Fields in production or under development

Gas Transportation System
The petroleum sector’s share of GDP was 19% in 2003.
The petroleum sector’s share of GDP was 25% in 2003.
The petroleum sector’s share of total investment was 24% in 2003.
The petroleum sector’s share of total exports was 45% in 2003.
The petroleum sector’s direct share of total employment was 1.2% in 2003.

Source: Statistics Norway
Norwegian Petroleum Industry Clusters

Value Chain

<table>
<thead>
<tr>
<th>TYPE OF COMPANY</th>
<th>Reservoir/Seismic</th>
<th>Drilling</th>
<th>Subsea</th>
<th>Platforms/fixed/floaters</th>
<th>Operations</th>
<th>Decommissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Companies</td>
<td>Reservoir &amp; Seismic</td>
<td>Drilling</td>
<td>Subsea</td>
<td>Engineering &amp; Project Management</td>
<td>Operator</td>
<td>Decommissioning</td>
</tr>
<tr>
<td>Main Contractors</td>
<td>Drilling equipment</td>
<td>Subsea</td>
<td>Fabrication &amp; Package Supplier</td>
<td>Marine Systems &amp; Equipment</td>
<td>Logistics &amp; Transportation</td>
<td>Down-hole and Well Services</td>
</tr>
<tr>
<td>System Integrators</td>
<td>Reservoir/Seismic</td>
<td>Drilling</td>
<td>Subsea</td>
<td>Engineering &amp; Project Management</td>
<td>Operator</td>
<td>Decommissioning</td>
</tr>
<tr>
<td>Product Suppliers</td>
<td>Drilling equipment</td>
<td>Subsea</td>
<td>Fabrication &amp; Package Supplier</td>
<td>Marine Systems &amp; Equipment</td>
<td>Logistics &amp; Transportation</td>
<td>Down-hole and Well Services</td>
</tr>
<tr>
<td>Service Companies</td>
<td>Drilling equipment</td>
<td>Subsea</td>
<td>Fabrication &amp; Package Supplier</td>
<td>Marine Systems &amp; Equipment</td>
<td>Logistics &amp; Transportation</td>
<td>Down-hole and Well Services</td>
</tr>
<tr>
<td>Research and development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Intsok
Important Areas of Cooperation between Iran and Norway

- Transfer and exchange of technology and know-how
- Management of large projects, EOR, gas value chain
- State organisation and management of the petroleum sector
- Education and training
- HSE
- Environment
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