The state organisation of petroleum operations

- Storting (parliament)
- Government
  - Ministry of Finance
  - Ministry of Petroleum and Energy
  - Ministry of Labour and Government Administration
    - Norwegian Petroleum Directorate
The organisation of the MPE

Minister

Political advisor

State secretary

Secretary general

Information section

E&P and market department

Petroleum department

Adm. budgets and accounting department

Energy and water resources department
The E&P and market department and the Petroleum department

E&P and market department
  - Exploration section
  - Oil section
  - Gas section

Petroleum department
  - Industry section
  - Environmental affairs section
  - Section for state participation
  - Petroleum law and legal affairs section
  - Economics section
Licensing round

Nomination ➔ Announcement ➔ Application ➔ Award

Negotiation
Macroeconomic indicators for the petroleum sector

*Preliminary national planning budget figures

Source: Statistics Norway
Net cash flow to the state from petroleum

NOK bn (2003 value)


Royalty and area fee
CO2 tax
Statoil dividend
SDFI
Taxes
State revenues

*estimate

Source: National account and state budget
Investment 1985-2002

Source: Statistics Norway
Estimates for future investment in fields and pipelines 2003-2012

- Fields in production or under development
- Pipelines/onshore
- Finds under evaluation
- Possible improved recovery measures
- Undiscovered resources

Source: MPE/NPD
Status for petroleum resources and the uncertainty in the estimates

13.7 bn scm oe

- Undiscovered resources: 27%
- Future measures: 29%
- Contingent resources in discoveries: 4%
- Contingent resources in fields: 7%
- Remaining reserves: 8%
- Sold and delivered: 26%

* Oil including NGL and condensate
Total petroleum production 1981-2002

Source: MPE/NPD
Crude oil production 1981-2002

Source: MPE/NPD
Dry gas deliveries from the NCS

Possible development new sales
Existing gas sale contracts

Source: MPE/NPD
Production forecast for petroleum 2003-2012

Source: MPE/NPD
Price of Norwegian crude oil, 1975-2002

Source: MPE
Production and net export of crude oil, incl NGL/condensate, 2001

<table>
<thead>
<tr>
<th>Country</th>
<th>Net Export (mill b/d)</th>
<th>Production (mill b/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>6,86</td>
<td>8,28</td>
</tr>
<tr>
<td>Russia</td>
<td>4,96</td>
<td>7,62</td>
</tr>
<tr>
<td>Norway</td>
<td>3,12</td>
<td></td>
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<tr>
<td>Venezuela</td>
<td>2,29</td>
<td>3,59</td>
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<tr>
<td>UAE</td>
<td>2,27</td>
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<td>Iran</td>
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<td>3,39</td>
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<td>Nigeria</td>
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<td>Kuwait</td>
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<td>Mexico</td>
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<tr>
<td>Iraq</td>
<td>1,54</td>
<td>2,49</td>
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</tbody>
</table>

Source: Petroleum Economics Ltd
Shipments of Norwegian crude oil 2002*

Total 184.3 mill scm oe

- Norway: 15.9%
- UK: 22.5%
- Netherlands: 13.9%
- Germany: 8.6%
- Sweden: 4.1%
- USA: 7.9%
- Canada: 5.6%
- France: 10.4%
- Others: 11.1%

*to first recipient

Source: NPD
Sale of NGL/condensate 2002*

Total 16.4 mill scm oe

- Norway: 20.4%
- Denmark: 8.9%
- Belgium: 4.9%
- Netherlands: 13.0%
- USA: 14.3%
- Sweden: 9.1%
- Germany: 1.8%
- Spain: 1.5%
- Portugal: 1.4%
- UK: 3.0%
- France: 3.9%
- Finland: 1.8%
- Others: 16.0%

* to first recipient

Source: NPI
Definition of natural gas

- Methane (C₁)
- Ethane (C₂)
- Propane (C₃)
- Butane (C₄)

Pentanes and heavier fractions also referred to as:
- C₅ +
- Natural gasoline
- Condensate

Natural gas

LPGs

NGLs

Source: MPE
Norwegian dry gas exports 2002 (estimate)

Total 64.2 bn scm

- Germany: 42.4%
- France: 21.3%
- Netherlands: 9.7%
- Belgium: 8.3%
- Poland: 0.8%
- Spain: 3.7%
- UK: 1.9%
- Italy: 6.7%
- Austria: 1.4%
- Czech Republic: 3.9%

Source: NPD
Exploration wells completed per year after reclassification

Source: NPD
Emissions to the air

Diffusive emissions
Gas turbine exhaust
Gas flaring
Well testing
Diesel fuel exhaust
Gas venting
Discharges to the sea

- Seewage/household effluents
- Drains
- Drilling discharges
- Spill
- Produced water
- Cooling water
- Displacement water
Employment in Norway’s petroleum sector 1984-2002

Source: Directorate of Labour
OG$_{21}$ R&D value chain

- Education
- Strategic R&D
- Short-term R&D
- Pilot/demonstration
# OG\textsubscript{21} main priorities

<table>
<thead>
<tr>
<th>Lead Party areas;</th>
<th>Environment</th>
<th>Improved recovery</th>
<th>Deep water</th>
<th>Small fields</th>
<th>Gas value chain</th>
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</thead>
<tbody>
<tr>
<td>Zero discharges to the sea</td>
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<td>Halving emissions to the air</td>
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<td>Improved recovery</td>
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<td>Floating production</td>
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<td>Wellstream transport</td>
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<tr>
<td>Subsea/downhole processing</td>
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<tr>
<td>Value creation in the gas chain</td>
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<td></td>
<td>+</td>
<td>0</td>
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</tbody>
</table>
Internettadresse - Internet address

- www.oed.dep.no
- www.mpe.dep.no