# **RESOURCE REPORT 2017**

# Maximising value for society

#### Oljedirektoratet 14.06.2017

The Norwegian Petroleum Directorate (NPD) works ensure that the petroleum resources yield the maximum possible value for society.



Norwegian petroleum policy lays the basis for profitable production of the oil and gas resources in a long-term perspective. See report no 28 (2010-2011) to the Storting. Through its activities and roles, the NPD will contribute to realising the government's principal goals for the petroleum industry. See the 2017 letter of allocation.

This report places the main emphasis on the NPD's role as a driving force for realising all economic value from fields and discoveries. For more information on the directorate's main goals, duties and roles, see <a href="https://npd.no/en/About-us/">npd.no/en/About-us/</a>



#### How the NPD works: challenge and set priorities

The NPD gives priority to issues which are important for value creation through the application of purposeful pressure. It carries out its own technical work in order to be in a position to challenge assessments and proposed solutions from the

companies. Pressure is applied in dialogue with the companies and by setting operating parameters.

How the NPD follows up fields and discoveries



#### Optimising value for society

The regulatory framework for the petroleum industry are intended to ensure that incentives for the companies coincide with the government's goal of creating the maximum possible value for society. In some cases, pressure is required from the government to ensure good solutions. The NPD helps to make sure that the companies comply with Norwegian legislation

which requires oil and gas resources to be recovered prudently and to the benefit of society.

Solutions must provide optimum value for society

To the opening view: Resource report 2017 – value for the future

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## A specialist regulator to challenge the industry

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The NPD holds extensive information on the Norwegian petroleum industry. Giving priority to issues where it can make the biggest contribution to value creation is important.

This applies typically in cases where a push is required to ensure the solution which yields the highest value for society. As part of the pressure it applies on priority issues, the NPD holds regular meetings with licensees. It also issues requests for supplementary information and studies.



Field developer Rannveig Storebø: "We have relevant expertise and can therefore challenge the companies"

## **Own technical work**

In order to play an active role in discussions on development solutions, drainage strategies and options for improved recovery, the NPD must be in a position to understand the decision base used by companies and to challenge this where necessary from a risk and profitability perspective. By undertaking its own technical work on geological models and reservoir simulations, for example, the directorate can challenge company assessments of the resource potential.

Relevant solutions could be present during a development phase which are not identified or assessed by the licensees.

Commercial calculations by the companies could point to solutions other than the one which yields the greatest overall value. Effects might exist which are not picked up by company profitability assessments, but which nevertheless affect overall value creation on the Norwegian continental shelf (NCS). That

could apply, for example, if a decision in one production licence has consequences for others.

### Integrated and long-term thinking necessary

Understanding the consequences of a project for overall value creation on the NCS can be demanding. Such assessments nevertheless provide a necessary basis for managing resources to create value.

Area- and NCS-wide assessments are an important part of the NPD's responsibility. It has access to information from all production licences, which provides a good basis for identifying gains from coordinating petroleum activities.

The NPD applies a long-term perspective to oil and gas operations, and therefore serves as a driving force for solutions which ensure value creation and flexibility for the future.

#### Instruments

Norway's petroleum industry is administered through operating parameters and requirements for government approval, permission or consent at various milestones. In practice, much of the administration is exercised through dialogue rather than legal instruments..

READ MORE: Instruments available to the government

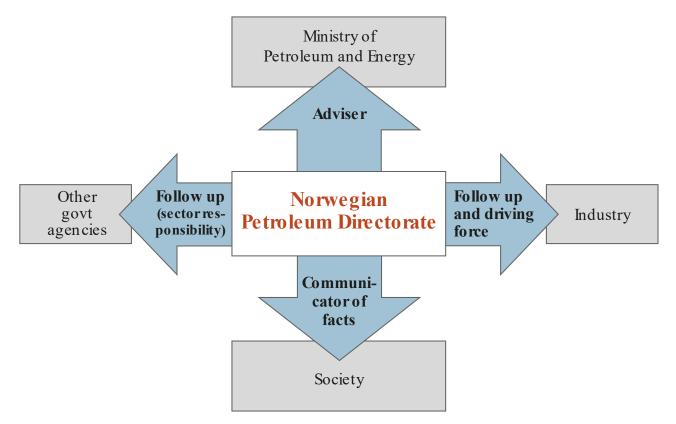
#### **Environmental considerations**

The Petroleum Act requires that the natural environment be taken into account in the administration of petroleum resources, and various instruments and measures are in place to ensure that licensees on the NCS do so. That applies to both emissions to the air and discharges to the sea. The NPD sees to it that relevant options are assessed and/or studied, and carries out cost/benefit evaluations when required. It works to ensure that the most cost-effective environmental measures are chosen where appropriate.

Read more about environmental conditions at NORSKPETROLEUM.NO: <u>Environment and</u> <u>technology</u>

#### The NPD's various roles

The roles played by the NPD vary according the stakeholders involved. In addition to following up activities on NCS fields and discoveries, it provides guidance to the petroleum industry on Norwegian regulations. The directorate also serves as an advisor on resource management to the Ministry of Petroleum and Energy.



The NPD's roles in relation to the ministry, the industry, society and other government agencies.

In relation to other government bodies, the NPD acts as the sector regulator and participates in that context in various fora. The directorate has a national responsibility for data from the NCS. Its data, overview and analyses provide an important factual basis for industry as well as political decision-makers and other players in Norwegian society.

A number of platforms are used by the NPD to communicate factual information. The fact pages and maps on its website contain extensive data on the NCS. Part of this information is also available through the Oil facts app.

In cooperation with the Ministry of Petroleum and Energy, the NPD has established the norskpetroleum.no website as a further source of information about oil and gas activities on the NCS.

Communication of facts by the directorate also takes the form of presentations and contributions to various fora and through regular publications.

SEE ALSO: the technological collaboration fora (OG21, Demo 2000, Petromaks 2 and Force)



Want to know more about the NPD's roles and how it works?

An invitation from the NPD to attend a course for the petroleum industry on its duties and roles aroused great interest. Almost 150 personnel from the sector attended this session on 12 December 2016

READ MORE: <u>download presentations from the course</u> ( in Norwegian only )

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Next chapter: Maximising value

# **RESOURCE REPORT 2017**

## Maximising value

#### Oljedirektoratet 14.06.2017

The regulatory framework for resource management on the Norwegian continental shelf (NCS) aim to provide incentives for the companies to maximise the available value on behalf of society. Nevertheless, cases may exist where the companies – for various reasons – prefer solutions other than the one which ensures the greatest overall value.

In such circumstances, the NPD's job is to work for the solution which yields the greatest economic value.



The NPD works to ensure that projects are designed to realise the total value potential – even in challenging market conditions

#### **Coordination and area assessments**

Coordination can help to cut costs and improve recovery. In that way, coordination and area solutions can contribute to achieving profitability for several deposits which are not commercial on their own. Pursuant to section 10-7 of the Petroleum Act, the licensees have a duty to seek agreement in cases where coordination of deposits is clearly the rational approach.

Taking an integrated view and thinking across production licences is an integral part of the NPD's role. Its access to information from all production licences qualifies it to identify possible coordination gains.



Its NCS-wide perspective allows the NPD to help identify opportunities for coordination across production licences held by different groups of licensees. (Artist's impression: Aker Solutions

#### Share information

In many cases, licensees themselves will see the value of a coordination. But the size of this value can vary between production licences. The interest of companies in coordinating their operations may therefore differ. Willingness to share information could also depend on the financial interests of the companies. Ensuring that decisions are based on the right information is an important part of the NPD's work.

#### Flexible development solutions

Flexibility for handling additional production could help to increase value. A project which has the capacity to cope with other deposits may be able to reduce overall development costs in the area. Moreover, history has shown that most fields on the NCS have produced more and for longer than expected when they were initially developed.

Spare capacity in established infrastructure may reduce the need for it in a new development. The NPD's area perspective and access to information can help to identify existing availability. It is able to apply such insight in working for more effective utilisation of available capacity.

### **Technology development**

Technological advances can create value through improved recovery or reduced costs. The companies must be willing to exploit the opportunities provided by such technology and thereby adopt new solutions. Investment in technological development may be insufficient from the perspective of society

#### Share experience

An investor does not necessarily value the possible gain which falls to other players. Similarly, companies may undervalue the benefit of applying available technology. Those who test new technology probably give little weight to the possibility that other players can also learn from the results.

The NPD works to encourage research and development (R&D). As part of these efforts, it coordinates innovation work which cuts across companies and production licences

### Windows of opportunity

Many of the companies on the NCS have large portfolios of future projects. It is important that they get to grips at the right time with those which have a critical window of opportunity.

A spending decision could mean that another investment is put on hold. Understanding how a postponement affects the project's contribution to value creation will be important



In some circumstances, conditions could mean that the value of a project declines – and at worst disappears – in the event of a

A number of projects can be delayed without a significant effect on their economic potential. In other cases, conditions could mean that the value of a project declines – and at worst disappears – in the event of a postponement. Recovery could face a critical window of opportunity, for example, if plans call for the resources to be produced via existing infrastructure with a limited remaining commercial life.

In mature areas of the NCS, new developments are usually tied back to existing facilities. As such infrastructure ages, the problem of a critical time frame is set to become increasingly significant. An important job for the NPD is to help ensure that projects are implemented before their window of opportunity Closes.

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