

# HCR

# 19

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# Representative Bob Herron

Rep.Bob.Herron@legis.state.ak.us

State Capitol • Juneau, Alaska 99801-1182

Phone: (907) 465-4942 • Fax: (907) 465-4589



House District 38  
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## HCR 19 – 2011 Norway Policy Tour

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Upper Kalskag

The Institute of the North sponsored the 2011 Norway Policy Tour August 27-September 4. 45 Alaskans, including 12 legislators, oil industry representatives, renewable energy advocates, local government representatives, and investors participated. HCR 19 aims to highlight what was learned on the policy tour that may be applied to Alaska's policies regarding our oil industry.

The first part of the resolution lists ways in which Norway and Alaska are similar and ways in which they differ. While it is clear that Alaska can learn from Norway's highly successful oil industry model, it is important to recognize the region's differences before attempting to apply Norwegian policy elements.

It is hoped the resolution will foster further discussion that could lead to legislation based on the Norway model that would improve how Alaska regulates its oil industry.

The resolution's five resolves call for the Alaska Legislature to:

1. Fully consider implementation of the lessons learned on the policy tour;
2. Apply elements of the Norwegian oil and gas model that have potential to improve Alaska's economy;
3. Explore how state investment in resource extraction would benefit revenue generation;
4. Support conferences in Alaska regarding Arctic investment; and
5. Support Alaska involvement in the Arctic Council.

In order to fully maximize the benefits of the 2011 Norway Policy Tour, the Legislature should carefully consider the many facets of the Norway model, and act on the best ideas arising from that consideration.



**FISCAL NOTE**

**STATE OF ALASKA  
2012 LEGISLATIVE SESSION**

**BILL NO.** HCR 19

**Analysis**

This Legislation has zero fiscal impact on the Legislative Affairs Agency.

AMENDMENT

OFFERED IN THE HOUSE

TO: HCR 19

NOT  
ADOPTED

- 1 Page 4, line 5:
- 2 Delete "revenue generation"
- 3 Insert "private sector job expansion, revenue generation,"

**ALASKA STATE LEGISLATURE**  
**HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, TRADE,**  
**& TOURISM**



**Representative Bob Herron, Chair**

State Capitol Building, Room 411  
Juneau, Alaska 99801-1182  
Phone (907) 465-4942  
Fax (907) 465-4589  
Rep.Bob.Herron@legis.state.ak.us

Rep. Neal Foster, Rep. Berta Gardner, Rep. Reggie Joule, Rep. Wes Keller,  
Rep. Cathy Muñoz, Rep. Kurt Olson, Rep. Steve Thompson, Rep. Chris Tuck

***Thursday, January 26, 10:15 – 11:45 AM***  
**Capital Rm. 124**  
***HCR 19: 2011 Norway Policy Tour Resolution***  
**Meeting Agenda**

**Institute of the North: Nils Andreassen E.D. and Ira Perman, Chairman  
Bradford G. Keithley | Perkins Coie LLP Environment, Energy & Resources/Oil &  
Gas**

- **Powerpoint on Norway Policy Tour**
- **Mr. Keithley will focus on State Direct Financial Interest**

**Rep. Paul Seaton and Rep. Bryce Edgmon**

- **Norway Policy Tour Participants**
- **Separate Accounting**

**Ole Anders Lindseth, Director General of the Norwegian Ministry of Petroleum &  
Energy (Recorded Video – does not speak directly to HCR 19)**

**Mark Myers, UAF Vice Chancellor for Research**

- **Alaska Oil Industry Expert – What from Norway might work here?**

**Lone Semmingsen of the Norwegian Ministry of Finance, Tax Policy Department  
(invited)**

**Available for Questions**

**William Barron, DNR, Director of Division of Oil and Gas (on-line)**

## Rob Earl

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**From:** Louie Flora  
**Sent:** Wednesday, January 25, 2012 11:28 AM  
**To:** Rob Earl  
**Subject:** FW: Norway Policy tour attendees

Confirmed attendees for the Institute of the North's Norway Policy Tour

August 28 through September 3

- Megan Alvanna-Stimpfle, Alaska Dispatch; Arctic Imperative
- Nils Andreassen, Managing Director, Institute of the North
- Paul Brown, consultant
- Karen Crain, North Slope Borough
- Harold Curran, North Slope Borough
- Brian Davies, oil and gas consultant
- Representative Bryce Edgmon, House Finance; Northern Waters Task Force
- Senator Johnny Ellis, Rules Chair, Alaska State Legislature
- Representative Neal Foster, House Special Committee on Energy, Co-Chair
- Senator Hollis French, Senate Judiciary, Chair, Alaska State Legislature
- John Handeland, Utilities Manager, Nome; former mayor
- Representative Bob Herron, Northern Waters Task Force; PNWER Arctic Caucus
- Christine Hess, Legislative Aide to Rep. Joule; Northern Waters Task Force
- Senator Lyman Hoffman, Senate Finance, Co-Chair, Alaska State Legislature
- Gwen Holdmann, Alaska Center for Energy and Power, University of Alaska Fairbanks
- Brian Holst, Executive Director, Juneau Economic Development Council
- Mayor Edward Itta, North Slope Borough
- Brad Keithley, Partner, Perkins Coie
- Meera Kohler, President, Alaska Village Electric Cooperative

- Senator Linda Menard, Legislative Council Chair, Alaska State Legislature
- Mayor Denise Michels, City of Nome
- Liz Moore, Director, Government Relations, NANA Corporation
- Senator Donny Olson, Senate Community & Regional Affairs, Chair
- Ira Perman, Institute Vice Chair; President & CEO, Important Work
- Larry Persily, Federal Coordinator for the Alaska Natural Gas Pipeline
- Chris Rose, Executive Director, REAP
- Representative Paul Seaton, Co-Chair, House Resources, Alaska State Legislature
- Hugh Short, President, Board of Directors, AIDEA; President & CEO, Alaska Growth Capital
- Senator Gary Stevens, Senate President, Alaska State Legislature
- Senator Joe Thomas, Senate Education, Co-Chair, Alaska State Legislature
- Senator Tom Wagoner, Senate Resources Chair, Alaska State Legislature
- Bill Walker, Alaska Gasline Port Authority
- James West Jr., Nome City Council

Local Host:

- Yngvil Vatn Guttu

## HCR 19 – 2011 Norway Policy Tour

### Talking Points

- Thursday, Jan. 26<sup>th</sup>, Norway Day here in the Capitol:
  - EDT: 10:15-11:45 AM in Rm. 124 (HJR 19)
  - Noon in Rm. 106 House Resources and Institute of the North hosting a “Lessons Learned from Norway” Lunch & Learn
- Institute of the North sponsored -- August 27- September 4, 2011
- 45 Alaskans (12 legislators), oil industry representatives, renewable energy advocates, local government reps, and investors.
- The resolution will help maximize benefits of the 2011 Norway Policy Tour – by highlighting what was learned on the tour that may be applied to Alaska’s oil industry policies.
- The tour was labeled by some as a “junket” but I think it was one of the more important legislative trips in recent memory. Shouldn’t we be examining what works really well in other parts of the world and see if it might work here? At the very least, that’s worth looking into.
- The first part of resolution lists Norway and Alaska similarities and differences. Alaska can learn from Norway but important to recognize differences and find something that will work here.
- The resolution starts a conversation
- I hope something will come out of this, some legislation and maybe changes in executive branch policy, this session or next session. I have no specific legislation in mind - the conversation is just beginning, but there have been rumors of State co-investment (SDFI) legislation in both houses and I’m sure we’ll see other ideas.

The resolution's five resolves call for the Alaska Legislature to:

1. Fully consider implementation of the lessons learned on the policy tour;
2. Apply elements of the Norwegian oil and gas model that have potential to improve Alaska's economy;
3. Explore how state investment in resource extraction would benefit revenue generation;
4. Support conferences in Alaska regarding Arctic investment; and
5. Support Alaska involvement in the Arctic Council.

Thank ION, all the nice Norwegians you met and all the Alaskan Tour participants

In a way, a resolution is only a glorified letter, it's true, but it does represent the legislature trying to communicate as clearly as possible to the public, and as forcefully as possible to the federal government, and I think that's important, so I'm proud of this effort and hope legislators and Alaskans can help us figure out ways in which we can emulate Norway, because something sure is working good over there.

While it has been correctly noted just how similar Norway and Alaska are, they are also very different, and you'll see the resolution speak to that. In all the things that Norway is doing and their oil and gas regulations and programs, we need to find at least a few very targeted ideas that we might be able to start talking in more detail about doing here.

- Columnists
  - Extra Innings
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### Point of View

## Lessons we can learn from Norway

By Paul Seaton

At the end of August, I took the “Institute of the North” sponsored trip to Norway. Forty-three people from Alaska, including 12 legislators, went for an intensive five-day schedule of meetings with public officials. The purpose of the trip was to investigate whether there were elements of the Norwegian oil and gas system of development that would be beneficial to incorporate into our system. A very enlightening portion of the trip was a presentation by the Rector (Chancellor) of the University of Tromsø, who explained what makes up the Norwegian psychology and philosophy.

The Norwegian government establishes policies and expects industry to devise a solution. Identifying the differences between their society and ours allowed us to segregate those elements of policy which would fit within our Alaska cultural philosophy.

There were three policies that I think could benefit Alaska.

### Lease Structure and Term:

The Norwegian government looks for promising areas, contracts for seismic work and gives the data to everyone. The “bids” are plans of development and the government selects the operator who offers the “best” plan to rapidly develop the lease. It also selects the other working interest owners (partners) to spread the risk based on their financial strength or unique expertise.

Alaska, on the other hand, relies on the cash bid winner to put together the working interest owners for the lease development. The term of a Norway “lease” is only six-years, and there are two-year work commitments, which, if not met, void the operator’s lease so another operator can be selected. The first two-year work commitment is completion of detailed seismic work. A second two-year commitment is drilling the first exploratory well if a target is identified. The last Cook Inlet sale included such terms for drilling the Cosmopolitan field.

The idea of firm, short development timetables could be used to help our Fill-the-Pipe agenda. Norway can issue the “lease” with the environmental and permit conditions for immediate use because the ‘lease’ is actually the approval of a plan of development. Alaska must generally wait years before a plan of development is submitted by the leaseholder and the permitting process starts. This expeditious development at leasing could benefit Alaska as it has Norway but would require quite a lot of process restructuring.

### State Direct Financial Interest

The state acts as a working interest owner like any other partner. Norway had a broad range of percentage participation in the past but has now determined that a 20 percent share is best. As a partner the government has access to all the data and is at the table when decisions are being made. SDFI is operated through a wholly owned corporation similar to the Alaska Railroad or Alaska Housing Finance Corporation. Except for a working capital pool, all the revenue flows through to the state. This was important to avoid the pitfall Norway perceived possible with the previous state-owned oil company or Statoil model. Statoil became very profitable and therefore a powerful economic force that could exert excessive influence on state policy. Statoil was privatized as a

company with shares sold on the stock exchange, though Norway retained 68 percent of the shares. The participating oil companies appear not to mind SDFI because it acts like any other investor, paying its allocated share of expenses and receiving its allocated share of profits. Alaska could greatly benefit from an SDFI partnership because we would have access to all the data, the lack of which has been a big detriment as we try to understand the industry. An 8 percent to 10 percent SDFI when added to our 12.5 percent royalty would place us in the 20 percent ballpark. The option to allow Alaska SDFI at these kinds of percentages could be set in the lease terms or allowed as a part of the bonus bid process for future leases. I think AHFC could be the entity to handle such an arrangement.

**Separate Accounting of Corporate Income Tax.** In Norway all the international oil companies, including our major Alaska participants, pay their 28 percent regular corporate income tax and 50 percent special income tax on the basis of the profit they make in Norway alone. Alaska has always been pressured to utilize a proportion of worldwide profit or “Unitary” tax method. In 1978 Alaska realized that we were losing a lot under the “Unitary” system so passed Separate Accounting – meaning “Alaska profit” would be the basis for the 9.4 percent state corporate income tax. The oil companies sued, lost, and appealed to the State Supreme Court. Four years later the State reverted to the old Unitary System because of the \$1.8 billion liability from the 1981 treasury if we lost. In 1985, we won on all points at the Alaska Supreme Court and the U. S. Supreme Court declined the appeal, stating there was no federal issue.

Because of industry pressure or a change in State attitude, separate accounting has never been reinstated. We have always been told the companies could not do separate accounting since they did not track their revenues and costs that way. That may have been true under the old ELF gross tax system but not true under the profit based PPT or ACES.

We also now know they explicitly do “separate accounting” for other oil provinces like Norway. If we take just the \$1.8 billion (the difference between the unitary system and separate accounting between the years 1978-1981) and divide by four years it would equal an underpayment of \$450 million per year for 30 years, or about \$13.5 billion. An estimate from the year 2000 stated we had lost \$4.7 billion between 1982 and 1997.

We need a full analysis for a correct accounting. International oil companies pay less under the unitary system because we effectively lower Alaska oil company taxes to compensate them for their less profitable investments around the world. Alaska-only oil companies see no difference in their tax calculation either way. I think that Separate Accounting will definitely be seen as a ‘balancing’ provision if modification of ACES legislation continues next year.

*This article is a condensed version from my newsletter which can be found at [housemajority.org/seaton](http://housemajority.org/seaton)*

Contact the writer

Posted by Editor on Nov 2nd, 2011 and filed under Point of View. You can follow any responses to this entry through the RSS 2.0. Both comments and pings are currently closed.

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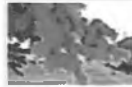
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## Commentary

# Fueling Alaska's economic engine in the future

Andrew Halcro | Jan 03, 2012



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Alaska oil taxes: The debate behind the debate

According to the Alaska Department of Revenue, the state will depend on oil and gas revenues to fund 92 percent of state spending this coming fiscal year. With increasing government costs and decreasing oil production, Alaska's economic engine needs an overhaul.

In 2007, just weeks after successfully pushing through the largest tax increase on the oil and gas industry in the state's history (ACES), the Palin administration proudly predicted that oil production would be 675,000 barrels per day in 2011. The actual production number turned out to be 603,000 barrels per day.

In fact, according to the optimistic projections after the tax increase was adopted, the Palin administration didn't forecast Alaska's daily oil production would drop to current day levels until 2022.

Looks like we arrived at their projected decline destination ten years early. As Joe Jackson would sing, "If my eyes don't deceive me there's something going wrong around here."

The declining production numbers are increasingly worrisome once you consider the growth in government spending during that same time frame.

In 2002, the state was producing over one million barrels of oil per day and general fund spending (operating) for fiscal year 2002/03 was 2.3 billion. In 2012, the state projects there will be 574,000 barrels per day produced and general fund spending (operating) will be \$5.5 billion.

To put this into perspective, consider the change in the cost per person for the state's operating budget over the last decade.

According to census data, in 2002 the population of Alaska was 650,000. When divided by the \$2.3-billion operating budget during that same fiscal year, the cost of state government was \$3,538 for every man, woman and child.

By 2012, Alaska's population had grown to 710,000 while the proposed operating budget has grown to \$5.5 billion. The current cost for operating state government is \$7,746 for every man, woman and child.

In short, while oil production has decreased by 40 percent over the last decade, the cost of supporting investments such as education, public safety, courts, employee retirement and all other operating expenses has doubled in the last decade. This of course excludes other state expenses like the annual capital budget and any cost shifts to the state from decreasing federal funds.

Even with record oil prices predicted to stay above \$100 per barrel this year, future revenue projections show a steep decline along with production. By 2015, state officials predict revenue will drop by 20 percent.

And while much credit goes to the Parnell administration for adopting a more accurate method of arriving at production estimates by eliminating the historical optimistic bias, their **honesty** is something lawmakers should heed.

Even with a projected decline of 4.7 percent in 2012, this figure is based upon the assumption that new oil either "under development" or "under evaluation" comes to fruition. In fact, by 2020 the DOR predicts that 50 percent of Alaska's oil production is based upon investments that have yet to be made.

While this isn't a real surprise for a state that balances its budget based on the fluctuating commodity price of a non-renewable resource, the question remains: How do we protect Alaska's economic future?

Many have pinned their hopes on the sudden emergence of small independent oil companies on the North Slope.

By nature, smaller companies are more nimble, have lower overhead and can make a go of smaller fields. However, caution is more than warranted.

While the growth of independents has made an exciting splash and given some state lawmakers an argument against modifying the existing ACES tax structure, some policy makers and industry insiders worry the benefits might not be what has been advertised.

Some have questioned the rosy potential expressed to lawmakers by independents. One official stated the project economics used by an independent during a recent presentation to the Legislature were simply not believable.

In addition, a recent report released by oil and gas consultant Pedro Van Meurs concluded that the generous exploration tax credits that have attracted independents, were completely disconnected from the actual transition into production.

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Tracking an Alaska fugitive at 40 below zero



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## Energy

# Statoil's Arctic offshore seismic tests approved

Jill Burke | Aug 05, 2010

Late Thursday afternoon, U.S. District Court Judge Ralph Beistline cleared the way for Statoil USA to proceed with a large-scale seismic study in the Chukchi Sea. The move comes just days after the same judge granted a similar request to Royal Dutch Shell. Both companies feared their ongoing or planned scientific activities were at risk in the wake of a court order halting all activity on leases the judge had ruled were inadequately reviewed by federal regulators.

Shell and Statoil had argued the ruling would cost them millions and force them to cancel projects, and Statoil had stated that unless everything fell into place for the company by Friday, Aug. 6, its project would be sunk.

"There's an awful lot of lawyers in the room. I think we are going to have to double the security," Beistline joked before starting the brief hearing, despite being visibly annoyed with the rushed process given that the two years leading up to this point had proceeded in a fairly methodical, routine manner.

Levity aside, Beistline was also precise and to the point. Why hadn't Statoil spoken up sooner about the dire situation it would be in if its permits for work this summer weren't approved? And why had the Bureau of Ocean and Energy Management taken such a broad interpretation of the judge's earlier order? "I don't like to get things piecemeal," he scolded lightly.

An attorney for the U.S. Department of Justice confirmed Statoil's claims that two federal agencies, BOEM and the U.S. Fish and Wildlife Service, were withholding final approvals over fears they would be in violation of the court's order.

"Communication between human beings is perhaps one of the toughest challenges in the world," Beistline remarked as he prepared to clarify his order a second time.

The judge made it clear he never intended for his order to suspend scientific studies.

"I personally believe the more scientific studies gained before exploration begins, if it ever begins, is a good thing," he said. "The order is intended to be narrow."

In 2008, environmental groups and the Native Village of Point Hope had sued to block the lease sale. This summer, they effectively won when Beistline ruled that regulators had failed to look at the impacts of natural gas development and to adequately assess the effect of missing information in the environmental reviews.

Statoil is conducting tests in and out of the lease area affected by Beistline's ruling to determine the potential for petroleum resources in the Chukchi.

Erik Grafe, an attorney for the plaintiffs, argued that Statoil's 3-D seismic mapping of the ocean floor, conducted with air guns, was loud and disruptive and threatened migrating bowhead whales. He also argued that the projects at issue are not scientific studies in the sense of gathering more information about the Arctic environment, but rather exploration activity, since they are directly in support of oil and gas exploration.

Beistline was unpersuaded.

"Scientific analysis is helpful in solving the bigger issue here -- whether we are going to poke holes up there," he said. "I am totally neutral. I don't care what happens up there. It's a long way from home. I just want to make sure it's done right."

Walking out of the courtroom, Karin Berentsen, a health, safety and stakeholder advisor for Statoil in Anchorage, said the company is pleased with the decision, but remains under a tight deadline.

"We have to get moving and get started with the job because we have been waiting for this thing a long time," she said, adding that it will take five days to move the company's boats from Dutch Harbor to the Arctic once all of the approvals are in place.

Contact Jill Burke at [jill\(at\)alaskadispatch.com](mailto:jill(at)alaskadispatch.com).



**How investigators busted Alaska wildlife manager Corey Rossi**



**Arctic Ocean may be approaching 'tipping point'**



**Fuel starts flowing from Russian tanker to Nome**

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## MINISTRY OF PETROLEUM AND ENERGY

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**Speech/article, 20.06.2011**

By: [Minister of Petroleum and Energy, Mr Ola Borten Moe](#)

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### **Norwegian policy on the development of the High North** **Speech by Minister of Petroleum and Energy, Mr Ola Borten Moe, in Moscow 20.06.11.**

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**This is the manuscript for the speech by Minister of Petroleum and Energy, Mr Ola Borten Moe, in Moscow 20.06.11.**

#### **Norwegian policy on the development of the High North**

- The High North is one of the main focal points of the present Government. Our aim is to work diligently to safeguard a sustainable development in our northernmost regions. This implies expanding economic activities to continuously develop society, employment, growth and welfare, in due consideration of environmental concerns
  - The Government will present a White Paper to the Storting on the oil and gas activities in Norway. The White paper will not least discuss geological mapping of new areas, efficient resource management, sustainable development and ripple effects
  - We live in an era of high energy prices and growing concerns about energy security. At the same time, we have advanced offshore technologies and there is optimism about the resource potential of the Arctic and hence also the potential for increased activity and development. This forms the basis for looking more closely into the opportunities that the Arctic may provide in a world that will experience a growing energy demand to increase growth and welfare, and reduce poverty.
  - Climate and environmental challenges can not be met without solving the world's energy needs and poverty issues. Norway will be a part of the solution through our resource management.
  - Ten years ago, the U.S. Geological Survey projected that around a quarter of the world's remaining hydrocarbons may be located in the Arctic – with a high potential for such resources on the Norwegian Continental Shelf. Since then Snøhvit, the first LNG field in Europe has been put in production in the Norwegian part of the Barents Sea. And the oil field Goliat is presently being developed, while a large oil discovery on the Skrugard prospect was recently made
  - Adding to this the activity and prospectivity of Arctic Russia and Arctic North America, it can clearly be stated that the Arctic represents a promising petroleum province
  - In this respect, some say there is a "race for the Arctic". The Arctic coastal states have, however, demonstrated during the past few years that there is no "legal vacuum" in the Arctic. The UN Convention on the Law of the Sea largely regulates what we do in the maritime areas. The Arctic coastal states deal with their rights and obligations in a legal and responsible manner. This has left the Arctic as a very stable region. There is no race
  - Our common target is sustainable management and responsible cooperation between the Arctic states – and the aim is sustainable economic development
- Let me continue to say a few words about the relations between Norway and Russia. A vantage point in this respect is the treaty on maritime delimitation in the Barents Sea and the Polar Ocean, which will enter into force on 7 July 2011
- With this treaty, we are setting an example worldwide of how delimitation disputes can be resolved peacefully, in accordance with international law and within the framework of modern international jurisprudence. With this treaty,

Norway and Russia are also making it clear that there is no ongoing race for resources in the Arctic, but that we – as responsible Arctic coastal states – are adhering to international law, including the international law of the sea

- Through our agreement on maritime delimitation in the Barents Sea, we send a signal to all Arctic states and the rest of the world that we deal with differences through negotiations, on the basis of modern principles
- The treaty also covers cooperation in these areas – not least with regard to the exploitation of any transboundary petroleum deposits that are discovered. Such deposits shall be exploited as one unit. I look forward to our further cooperation in this respect
- The treaty creates new opportunities for petroleum activities and cooperation in areas of the Barents Sea that have so far been closed to such activities. This is the start of a new chapter in our cooperation and our energy dialogue
- The geological mapping in this area so far tells us little about the prospectivity. Norway will start geological mapping on its side of the delimitation line when the treaty enters into force. This will be one element in an impact assessment that we will carry out for this part of our continental shelf
- Norway subscribes to the highest possible standards of health, safety, and the environment in our oil and gas activities and has adopted an integrated management plan for our northernmost waters. The plan takes a comprehensive, step-by-step approach to the development of petroleum resources in the high North. Further, our regime has been based on coexistence with other interests at sea, such as fisheries and sea transport
- The Barents Sea is one of the cleanest, richest and most productive marine areas in the world. As petroleum exploration and production expand into the Arctic, we must therefore balance the need to maintain the qualities of the Barents Sea against our work towards continuous and sustainable development
- “We can only ensure sustainable use of resources and sound environmental management in the Barents Sea with Russia’s engagement and Norwegian-Russian cooperation.” In this respect, this direct quote from our High North Strategy is both a statement of fact and a guide to action
- Norway and Russia share the Barents Sea and many of the challenges of the high North. If we are to maintain the northern seas in their present pristine condition, our two countries must expand their cooperation in this respect. For reasons of geography, geology and ecology, we need to manage our relations in a way that makes us both part of the solution to the sustainability challenges of the High North
- As strategic partners on the petroleum sector in the North, a natural starting point for our energy cooperation will be linked to energy dialogue and industrial cooperation and thereby ensure that the Barents Sea, which we share, becomes a model area for good resource management
- Another issue is to attract the petroleum industry. In this respect, we must for example ensure that investors, both foreign and national have access to licences and petroleum reserves on terms that are favourable enough to compensate for technological, financial and other perceived risks
- The combination of industrial complementarity and geographic proximity is also a good basis for releasing the potential for energy cooperation between Norway and Russia. Both sides stand to gain from cross-utilisation or co-development of skilled labour, specialised offshore technologies, logistical networks and other infrastructure in the North. These possibilities would also be put to good use in case cross-border petroleum deposits if they are discovered in the Barents Sea. The new delimitation agreement provides that all such petroleum deposits shall be unitised and exploited jointly as one unit
- From our side, we will continue to work actively – both in relation to Russia and in relation to the northern areas of Norway to secure long term and sustainable exploitation of the petroleum resources of the high North
- Turning now to another important issue, I would like to make a few reflections on the recent developments in the Arctic Council. The recent Foreign Ministers’ meeting signalled the increased importance of the Arctic Council. Norway is proud and honoured to have been vested with the responsibility of creating this Arctic secretariat, which will be located in Tromsø. We hope that it will be manned by people from all the Arctic Council member states
- The Arctic Council itself has also undergone an interesting development. While originally concentrating on protection and environmental concerns in the Arctic, the Council now has its main focus on adaptation to new conditions due to melting of sea ice, in addition to dealing with pollution and climate change. One result of this is the first legally binding agreement under the auspices of the Arctic Council – relating to search and rescue.

In summary, ladies and gentlemen:

- We will continue to work actively – both in relation to Russia and in relation to the northern areas of Norway to secure long term and sustainable exploitation of the petroleum resources of the High North

- I take it for granted that we will be able to make production and consumption of oil and gas ever more environmentally friendly. A main goal is to always reconcile Norway's role as a large energy producer with a pioneering position on environmental and climate issues

- I am a strong believer in good resource management, and I am of the opinion that it is not so much a question of whether oil and gas activities should take place in challenging regions like for instance the Arctic, but on what conditions

- I look forward to exploring and realising the increased potential for cooperation between Norway and Russia rendered by the new delimitation treaty. I strongly believe that there are many, many opportunities that we can pursue jointly and realise in a sustainable manner.

Thank you for your attention!

**CONTACT INFORMATION**

**Press enquires MPE**

[Send e-mail](#)

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## MINISTRY OF PETROLEUM AND ENERGY

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### The State's direct financial interest (SDFI)

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**The SDFI arrangement was established in 1985. The arrangement implies that the Norwegian State participates in the Norwegian petroleum sector directly as an investor. The SDFI has a direct financial interest in 137 production licences and in 14 joint ventures for pipelines and onshore facilities.**

The SDFI was created in 1985 by splitting Statoil's share in licenses it held on the Norwegian Continental Shelf (NCS) in two. Statoil was allowed to keep one half and the SDFI was given the other half.

The arrangement involves the State paying a share of all investments and operating costs in projects on the NCS corresponding to its direct financial interest in the SDFI portfolio. On the same terms as the other owners, the government then receives a matching share of revenues from the sale of production and other income sources. The Storting (parliament) votes the SDFI's budget and framework on an annual basis. Income, expenses and investments in the SDFI are thereby channelled directly over the central government budget. The net cash flow resulting from the SDFI portfolio constitutes a predictable, long term and secure revenue to the Norwegian State.

#### Long-term goals and strategies

Achieving the highest possible revenues for the government is the overall long-term goal in managing the SDFI portfolio. Combined with the tax system, the SDFI is a well suited instrument for securing a high proportion of the value creation on the NCS to the government.

The government, through its management company for the SDFI portfolio (Petoro), focuses its management of the portfolio on the large revenue-generating oil and gas fields, as well as on other high-value discoveries which might be approved for development.

When awarding new licenses, the Ministry of Petroleum and Energy acting on behalf of the government decides whether to keep interests in production licences on the basis of the potential profitability and value creation opportunities offered by each licence. The general rule when awarding supplementary awards is that the share of the State's direct interest in a license will reflect its interests in adjacent fields or areas.

#### The SDFI portfolio today

The value of the SDFI is estimated to approximately NOK 834,8 billion as of 1 January 2008. This is according to a value estimation carried out by Wood Mackenzie.

#### Interests in the 10 largest fields

The SDFI has a direct financial interest in 137 production licences. The 10 largest fields in the portfolio based on remaining reserves are:

- Troll
- Ormen Lange
- Åsgard
- Heidrun
- Snøhvit
- Oseberg
- Kvitebjørn
- Snorre
- Visund
- Gullfaks

The State also has direct interests in a 14 joint ventures for pipelines and onshore facilities.

#### Cash flow from the SDFI

The SDFI's accounts are kept on a cash basis in the central government budget and accounts. This means that revenues and expenses are posted in the period when they are paid and that investments are expensed as incurred. The net cash flow from the SDFI is the difference between receipts and outgoings. The net cash flow from the SDFI portfolio is transferred directly to The Government Pension Fund- Global.

In 2009 the net cash flow from the SDFI portfolio was NOK 95.3 billion. Total revenues were NOK 156.2 billion, and costs were NOK 60.8 billion. The estimated net cash flow for 2010 is NOK 81.1 bn.

The net cash flow from the SDFI is expected to account for a substantial proportion of the central government's revenues from the petroleum sector in coming years.

(Updated 10 mars 2010)

#### **CONTACT INFORMATION**

##### **Department for Economic and Administrative Affairs (ØA)**

Telephone: +47 22 24 61 11

Fax: +47 22 24 65 53

##### **Address**

Einar Gerhardsens plass 1

Postbox 8148 Dep, 0033 Oslo, Norway



## MINISTRY OF PETROLEUM AND ENERGY

You are here: [Government.no](#) / [Ministry of Petroleum and E...](#) / [Subjects](#) / [State participation in the ...](#) / Statoil ASA

### Statoil ASA

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**Statoil is an international energy company with operations in more than 30 countries. The company operates approximately 80 per cent of Norwegian oil and gas production, and its international production is increasing. Statoil is one of the world's largest sellers of crude oil and a significant vendor of natural gas to the European market.**

#### Some historical notes

When Statoil was established in 1972, a wholly state-owned oil company was regarded as important for ensuring the best possible government control over the development of Norway's petroleum resources.

The company played an important role as an instrument in petroleum policy, in part with regard to the award of new licences and decisions on field developments.

Stock market listing and partial privatisation, June 2001 The Storting (parliament) voted in favour of a partial privatisation and stock market listing for Statoil on 26 April 2001. This decision permitted shares totalling up to one-third of the company's value to be sold to new owners.

Ahead of the privatisation and listing, assets corresponding to 15 per cent of the value of the State's direct financial interest (SDFI) were sold to Statoil. One of the main objectives of this sale was to strengthen the company's competitive position, particularly with regard to gas assets.

Statoil was partially privatised and listed on 18 June 2001, when it was converted from a limited company to a public limited company. Statoil's share is listed on the Oslo and New York stock exchanges.

After the initial offering the government retained 81.7 per cent of the Statoil shares, with private Norwegian and foreign investors holding 18.3 per cent. Statoil's share is listed on the Oslo and New York stock exchanges. The Storting has resolved that state ownership in Statoil can be reduced to two-thirds of the shares. In July 2004, the government implemented a further sale of shares in a secondary offering. 100 million shares were sold to institutional investors in Norway and abroad, and an additional 16 765 800 shares were sold in a retail offering to private individuals in Norway and the European Economic Area (EEA). In February 2005 the government carried out a further sale of 100 million shares to institutional investors, followed by a sale of 17.65 million shares to private individuals.

The boards of directors of Statoil ASA (Statoil) and Norske Hydro ASA (Hydro) announced on 18 December 2006 that they had reached agreement on recommending a merger between Hydro's petroleum business and Statoil ASA to their shareholders. The merger plan was approved by Parliament on 4 June 2007. On 5 June 2007 the two companies' extraordinary general meetings approved the plan. The government held 70.9 per cent of the shares in Statoil prior to the merger with Hydros Petroleum activities on the 1.st October 2007.

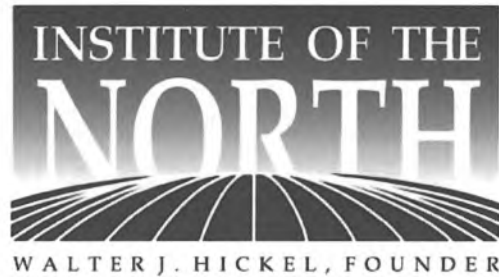
As a result of the merger, the Norwegian State equity stake was diluted down to approximately 62,5 % of the shares in the new company. During 2008 and 2009, the state purchased company shares in the market, and on the 5th March 2009, it was announced that the state had reached a 67 per cent majority.

#### Owner supervision of Statoil by the MPE

Statoil competes on equal terms with other players on the NCS. Nevertheless, state ownership in Statoil continues to have an important function – not least in ensuring that the company retains a firm Norwegian base.

The government's shareholding is also crucial for implementing the sales and marketing arrangement for state-owned oil and gas production.

Statoil markets and sells this petroleum together with its own share of output on the basis of guidelines specified in a sale and marketing instruction from the Ministry of Petroleum and Energy.



## **NORWAY POLICY TOUR: Areas of Inquiry**

(v.4.19.11)

**ENERGY: FOR EXPORT: Oil is the lifeblood of the Alaska economy. In addition to high paying jobs in the industry, oil provides up to 90% of the revenues of Alaska's state government. Conventional oil production from the North Slope is in decline causing Alaskans to worry about their future. What can Alaska learn from Norway that may help Alaska extend the life of its oil (and gas) industry?**

How did Norway come to have its own oil company (Statoil-Hydro)? What is the history? What were the motivating issues? How was it capitalized? How did it become a shareholder-owned corporation?

What is the governance relationship between the State of Norway and Statoil-Hydro? Do the politics and social policies of Statoil's majority owner (the government of Norway) affect Statoil's business decisions?

Reportedly, 70% of Norway's current oil production is produced by Statoil-Hydro. Is this true? Tell us more about the other 30%: Are other oil companies encouraged to explore and produce? What is the collective tax burden upon these companies? Can they effectively compete with Statoil-Hydro?

Oil was struck in Norway's section of the North Sea in December 1969. Less than two years later it was in production. Oil was struck on Alaska's North Slope in March 1968. It was not until June 1977 that it was in production. How does Norway get its oil into production so quickly?

There are published claims that Norway employs 250,000 in its oil and gas sector (direct and indirect employment) while Alaska employs less than a quarter of that number. Given that Alaska and Norway have produced similar volumes of oil since their respective major oil discoveries in the late 1960's, is this true? If so, to what is the number of jobs attributable?

Alaska exports almost all of its oil as crude. To what extent does Norway add value to its oil by its refining and petro-chemical industries?

Discuss Norway's production and export of natural gas. What are the opportunities and challenges?

Norway now exports its oil and gas expertise globally resulting in Norwegians being employed abroad and earned revenues coming to Norway from abroad. How did that come about?

Norway "exports" its model of national ownership of oil and gas. How does this either support or run counter to Norway's growing financial interests as an international competitor to major traditional international energy firms (I.e.: Shell, BP, Exxon)?

Discuss Norway's efforts to improve the safety of hydrocarbon industry. What are Norway's safety management and rescue program regimens? Describe its regulatory framework and response protocols. How are these planned and implemented with the participation of coastal communities?

How is Norway's exploration and production of hydrocarbons affected by fishing industry concerns? How are conflicts between the two industries addressed and resolved?

How is Norway's exploration and production of hydrocarbons affected by environmental concerns such as domestic climate change policy and the international Kyoto Protocol? Discuss Norway's leadership in offshore spill prevention and spill mitigation technology. Discuss CO2 capture technology at the Snohvit natural gas field. Discuss Norway's utilization of what in many countries is waste energy (I.e.: flaring).

Norway and Alaska have a common neighbor: Russia. What has been Norway's approach to working with Russia on oil and gas development?

**ENERGY: FOR NORWEGIAN CONSUMPTION: Most of Alaska is dependent upon natural gas, diesel fuel and coal for its heat and electricity. Availability, market pricing and environmental regulation are making these energy resources harder to afford. What can Alaska**

## **learn from Norway that may help Alaska provide its communities with long term, affordable energy?**

To what degree does Norway use hydropower for its internal energy use?

What type of electricity generation is used in Norway's small remote communities? Hydro? Transmission lines? Diesel? Natural Gas? LNG via small LNG tanker?

Are power costs subsidized? If so, how and to whom?

How does Norway plan and finance its hydro, wind and other alternative energy **research**?

How does Norway plan and finance its hydro, wind and other alternative energy **installations**?

## **PUBLIC FINANCE and NORWAY'S ECONOMY: In terms of employment, per capita income and government savings, Norway is the envy of the world. Alaska too is fortunate in these regards. Yet Alaska's economic future feels uncertain. Norway's economic future appears less uncertain. What can Alaska learn from Norway that can strengthen Alaska's economy for the long haul and assure the State of Alaska's ability to deliver public services?**

How did Norway's Government Pension Fund (NGPF - Norway's rough equivalent of Alaska's Permanent Fund and previously known as the "Oil Fund") grow to be so large? How is the NGPF managed? By whom? What investment policies are in place? Index vs. active management? Are all of Norway's oil and gas revenues deposited in the fund?

Does Norway use the NGPF to collateralize projects?

What % of the budget of Norway's national government budget is attributable to oil and gas revenues? (In Alaska it is 85- 90%.) Explain "The 4% Rule" (limiting the use of oil and gas revenues for the national operating budget to 4% of the value of the NGPF).

Describe the State's Direct Financial Interest (SDFI). What role does the Petroleum Directorate play in this? What role does Petoro play? Do the oil companies provide oil well drilling log data to the Norwegian government?

To what does Norway credit its ability to run a national budget surplus? (A 10% surplus in 2008 or 2009)

What are Norway's rates of taxation on oil? Does it offer incentives or credits for exploration?

What are the rates of taxation in Norway for individuals/families/businesses?

Norway seems to be moving cautiously away from state ownership of some of its major industries (i.e.: energy and rail) towards a hybrid of private/public shareholder ownership. Is this correct? What is the current discussion about this in Norway?

What is the health of Norway's private sector? In terms of private investment, return on investment and employment, is the sector strong and growing stronger? Or under-performing?

To what extent does Norway's national government financially support the provision of public services via local government?

How have the assets of Norway's private banks been affected by Norway's economic model?

What is the relationship of Norway's private banking system to the state's vast financial holdings?

What policies does Norway employ to encourage entrepreneurship and small business development?

To what does Norway credit its low unemployment rate?

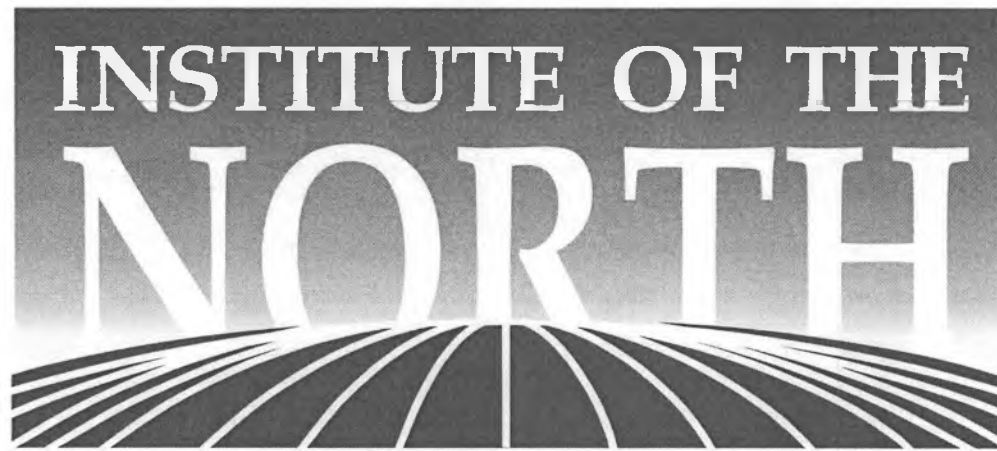
### **NATIONAL CHARACTER: Sometimes, looking at the character of another people can tell us a lot about ourselves.**

Explain how the character of Norway and Norwegians allows sufficient trust between the governed and their government to permit the government's venture into the start-up and ownership of some major business enterprises?

Describe the national government's relationship to the northern Sami in terms of governance, local determination, education, health services, infrastructure development and subsistence.

Norway seems to find ways of working cooperatively and profitably with Russia while others (UK and U.S. companies) do not. Why is this?

And finally: Norway (population only 4.9 million – less than Minnesota) has won more winter Olympic medals than any other country. To what can this be attributed?



WALTER J. HICKEL, FOUNDER

**PUBLIC POLICY REPORT:**

**HOW NORWAY DEVELOPS  
ITS OIL AND GAS**

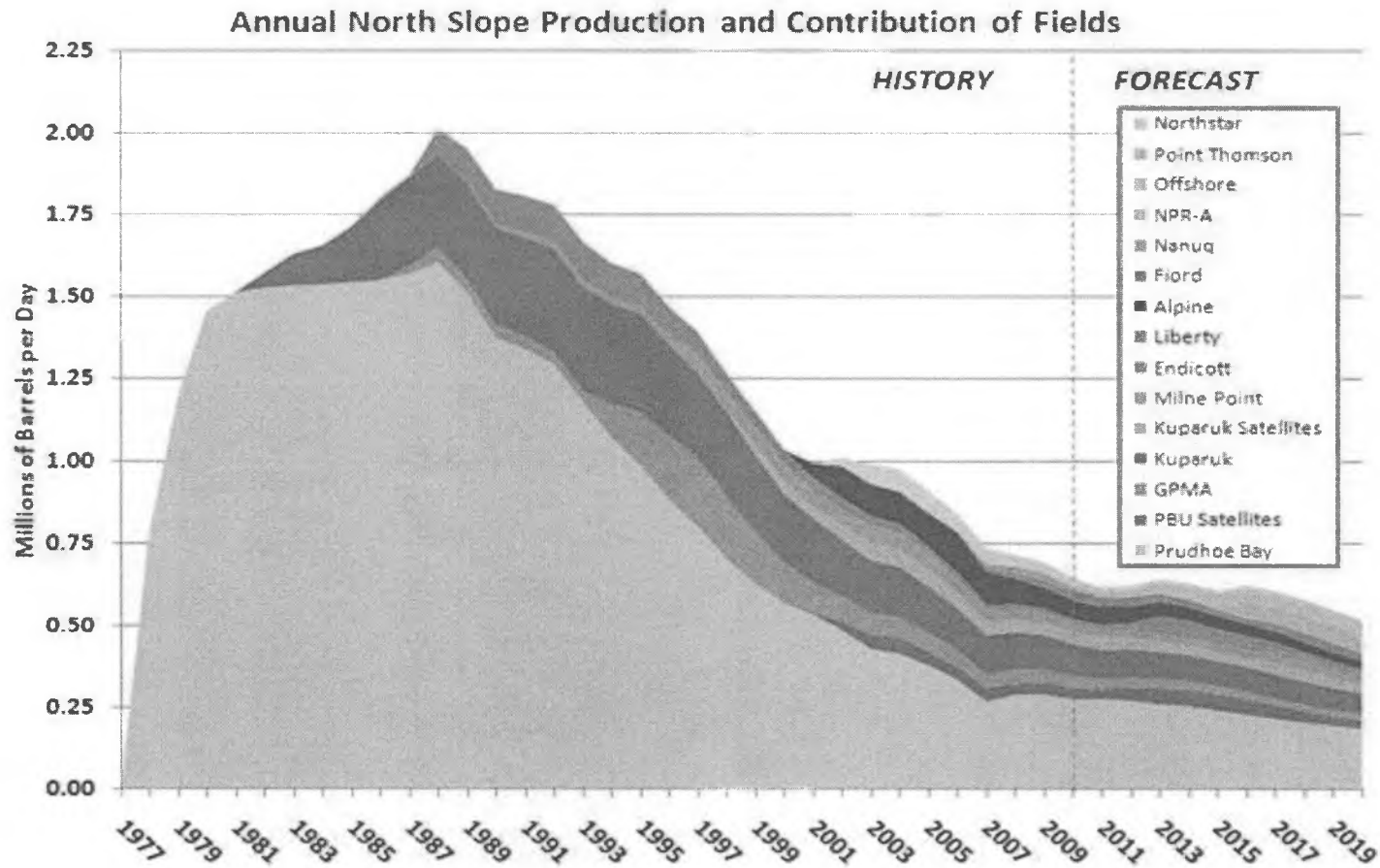
A Presentation to the House Special Committee on  
Economic Development, Trade and Tourism

January 26, 2012

# The NORTH



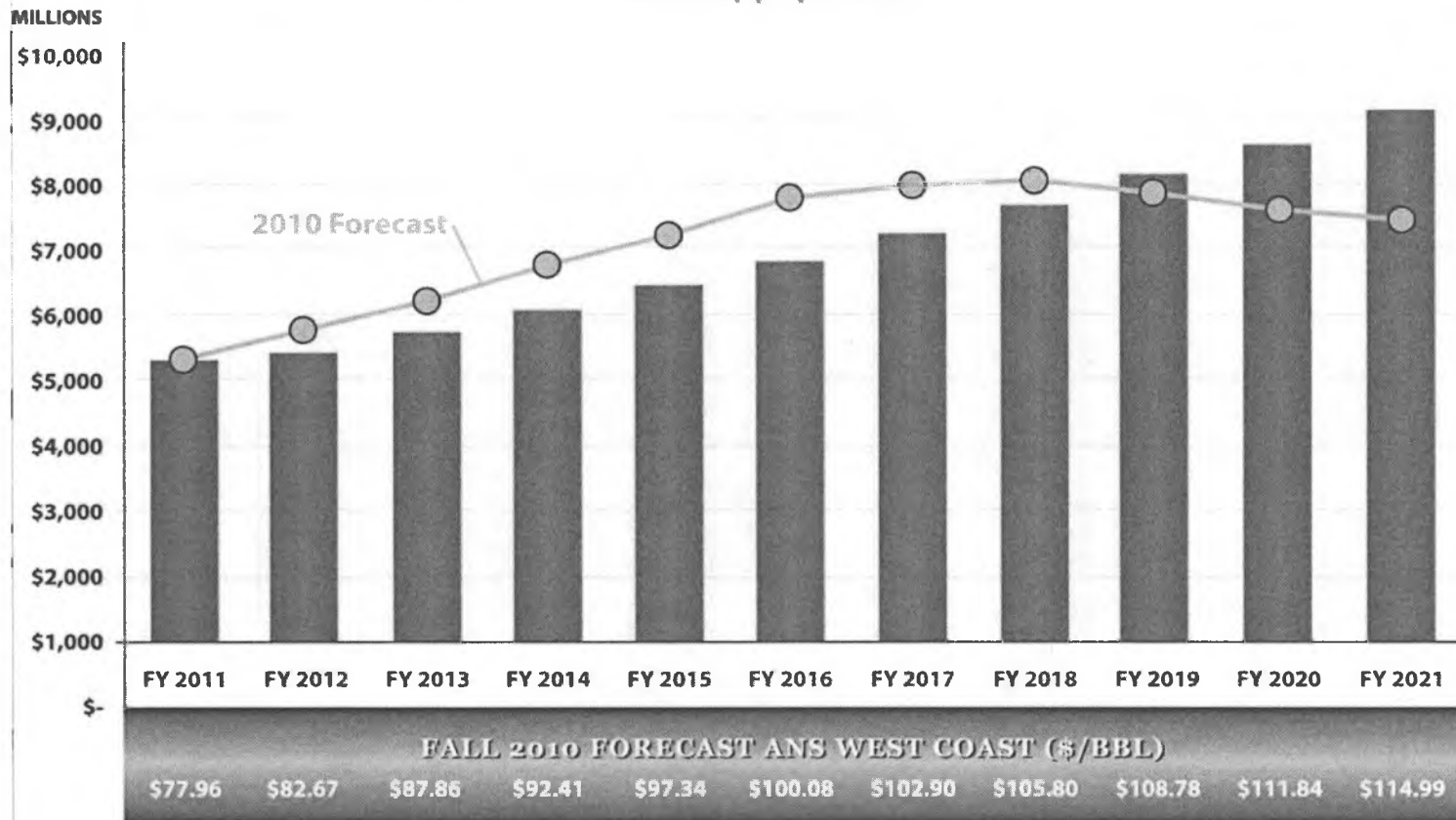
# Why We Went: Oil Production in Decline Alaska's Economic Future is Uncertain



# 7 Years of Surplus Ahead; Then What?

## FY 2012 Governor's Budget with 6% Annual Expenditure Growth

GF Revenue versus Appropriations FY11 to FY21



Source: State of Alaska, Office of Management & Budget, FY2012-10 Year Plan.

# NORWAY

with Alaskan cities at corresponding latitudes



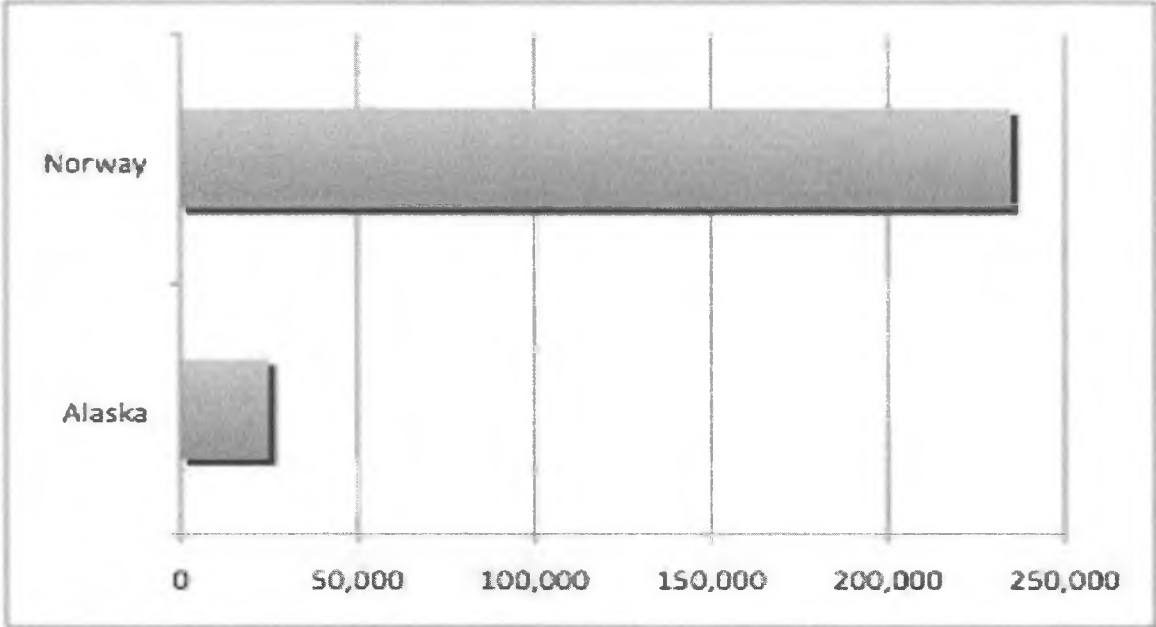
# WHAT WE FOUND

# Norway Today: Prosperous



# Norway has more jobs in the oil and gas sector than Alaska.

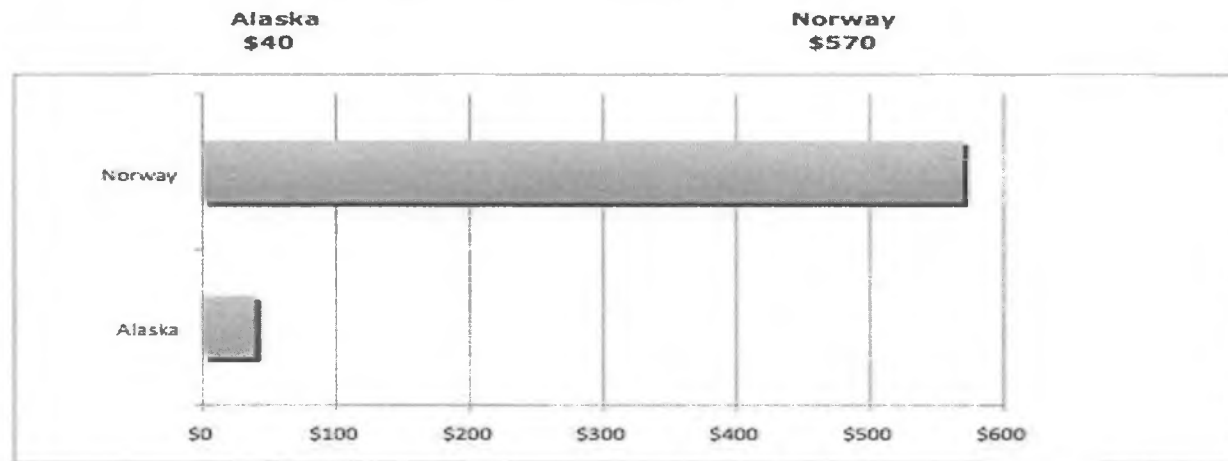
**Oil and Gas Jobs**  
(Direct and Indirect)



# Norway's version of a Permanent Fund is much bigger than ours.

## Norway's Oil Fund vs. Alaska's Permanent Fund

In Billions of US Dollars September 2011



Norway: First deposit in 1996. 12 billion barrels produced since 1996.  
Alaska: First deposit in 1977. 19 billion barrels produced since 1977.

# \$3 Trillion before oil & gas run out.

# Snapshot of Norway (2010):

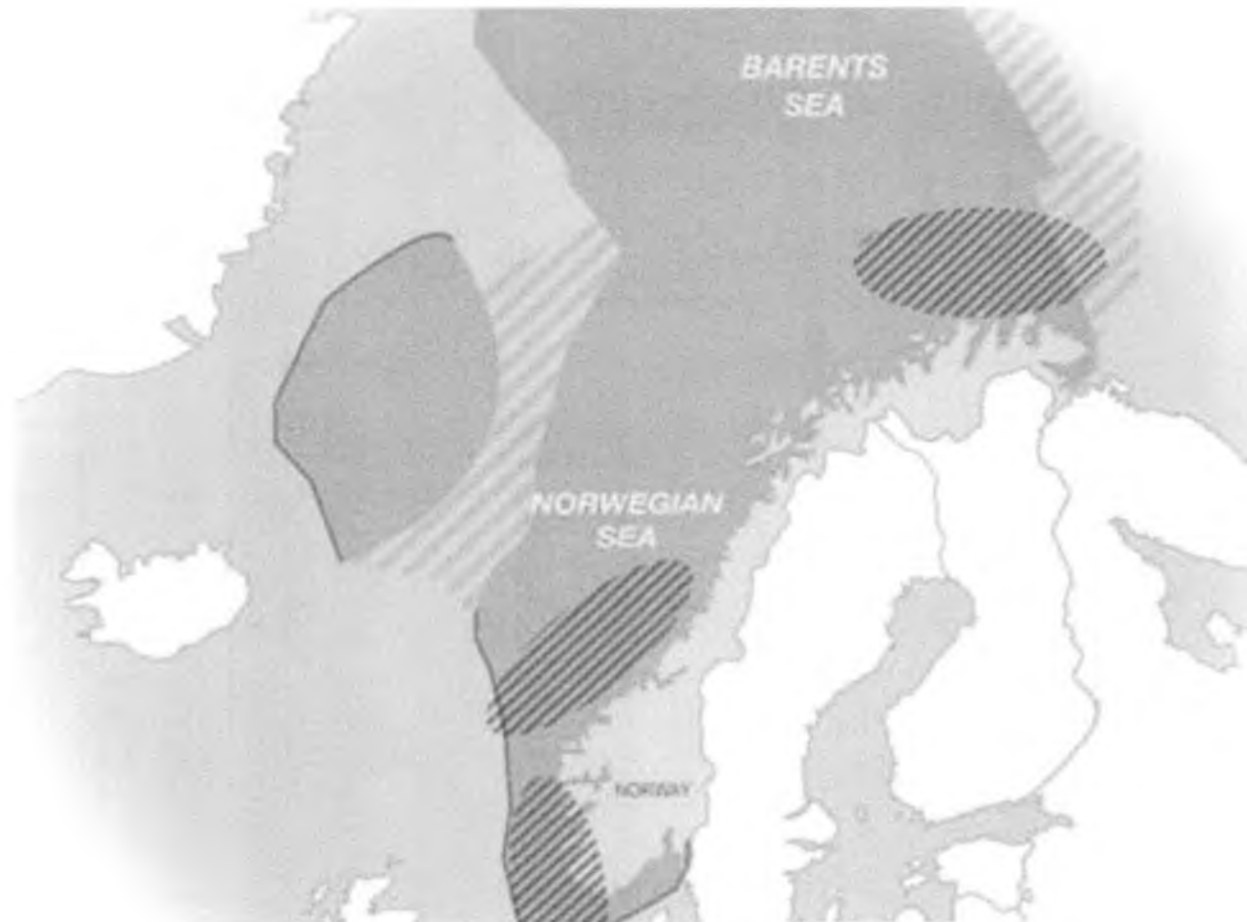
- **Population: 4,888,000 (7x that of Alaska)**
- **Income Per Capita: \$88,400 (vs. \$43,209 AK)**
- **Income: GDP/PPP: \$59,100 (vs. \$47,700 U.S.)**
- **Unemployment Rate: 3%**
- **% of Government annual expenditure paid by oil and gas revenues: 10 - 26% (vs. 80-90% AK)**
- **Democratically elected unicameral Parliament. Plus ceremonial monarch.**

# Norway's Oil and Gas

- **Primarily for export**
- **World's sixth largest oil exporter**
- **Europe's second largest gas exporter**

# Norway's Continental Shelf

100% of Oil and Gas is Offshore/State-owned



# A Summary of What We Learned:

- Norwegians are not worried about their economic future.
- Norway has flattened oil and gas production decline.
- How:
  - By attracting investment capital, and
  - Co-investing in its own oil and gas development.



# Lesson Learned

**Norway successfully attracts private investment to help develop its oil and gas resources:**

**60+ International oil and gas producers are investing in Norway.**

# 60+ Oil and Gas Companies Invest in Norway



# Norway's Licensing System:

- Norway selects tracts to license (6 year initial term) after consultation with stakeholders
- Norway conducts initial seismic (2D); results are made public
- Industry submits applications consisting of a work plan, financial strength, safety record (no bonus bid, no royalty)
- Licenses are awarded based upon work plan and qualifications; 6 years = "Drill or Drop"

# Norway's Licensing System (cont.)

- Environmental and other approvals are included in license
- License may include several partners and specifies state (Petoro) share as part of terms
- Going forward, all partners are part of decision process, share investment, expenses and information

**BUT: The #1 investor in Norway's  
oil and gas development is.....**

**NORWAY**

**Through State Direct Financial  
Interest (SDFI)**

# What is SDFI

- **State invests and participates directly** (the same as a producer) in the development of the resource
- **State substitutes ...**
  - ... **definitive work and investment commitments**, for upfront lease bonus,
  - ... **participation in development decisions** and access to information, for passive royalty role
- **State becomes an active participant** rather than a passive, back seat driver

# Most significant lesson learned

- SDFI creates **alignment of interests** between the State and producers
  - State gains understanding of investment dynamics
  - State has full access to data and better understands field dynamics and development
  - State participates directly and has the ability to help drive development decisions
  - Increases State understanding, reduces State suspicion
- Norway once used bonus and royalty system, but transitioned away from it because they concluded it impaired investment decisions

# Implementing SDFI in Alaska

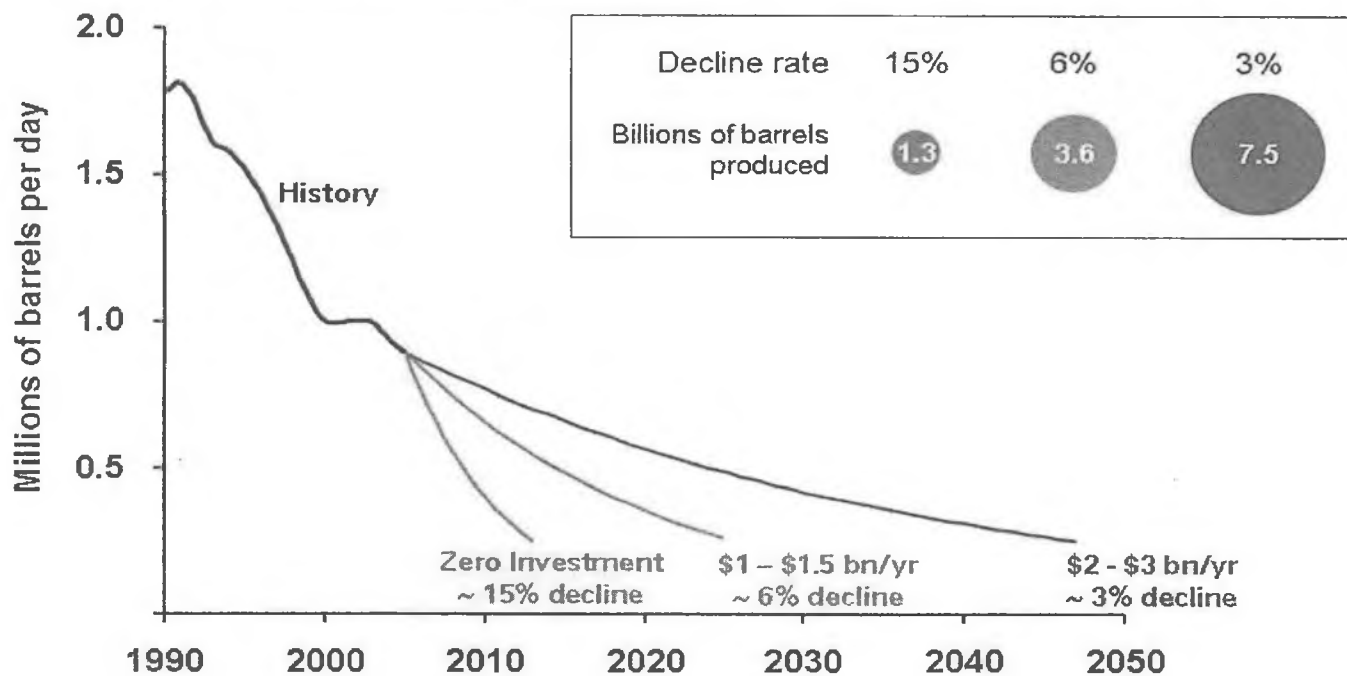
- Can be added as an option in new leases
- But, that does not reach “low hanging fruit”
  - Challenge is to make SDFI available as an option to help immediately in developing existing resources
- Important part of Norwegian model: create a professional, non-politicized corporation (similar to Permanent Fund Board) to administer state’s interest

# A Way Forward

- Create an option for converting to SDFI under existing leases (upon mutual agreement)
  - Focus on undeveloped or underdeveloped horizons
- Potential approach
  - State exchanges royalty for specified ownership percentage, fixes fiscal terms, becomes a participating owner
  - Parties (including State) agree to a specified work commitment for the agreed areas

# The Goal: Change the Curve

## Investment & Decline



**Source:** BP Presentation on Proposed PPT  
(Alaska State Legislature House & Senate Resources  
Committees 2006)

# **RECAP: Private Companies Like: Norway's Investment Incentives:**

- **Reduced Risk** (2D seismic provided by Norway)
- **Reduced Up-Front Costs** (no \$ bids)
- **Shared Risk/CO-INVESTMENT (SDFI)**
- **Alignment** between Norway and industry
- **Predictability:** Quick permitting, consistent environmental and safety rules, limited judicial interference. License to Production in 3 years.
- **Tax Stability:** 78%; non-progressive. Rapid deductibility of development costs

# SUMMARY:

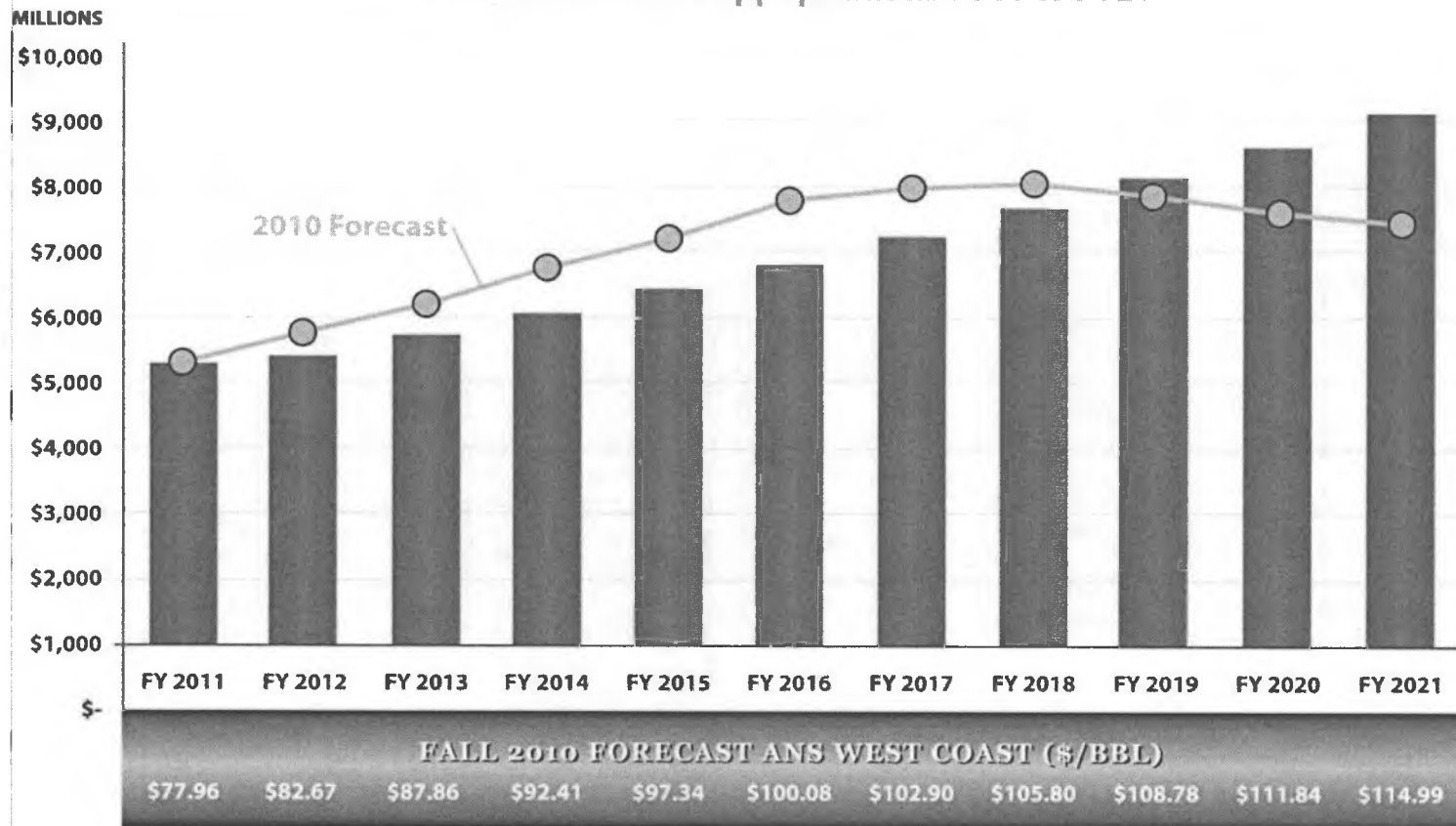
## The Norway Model:

1. SAVE
2. CO-INVEST
3. PROSPER

# 7 Years of Surplus Ahead; What Should We Do?

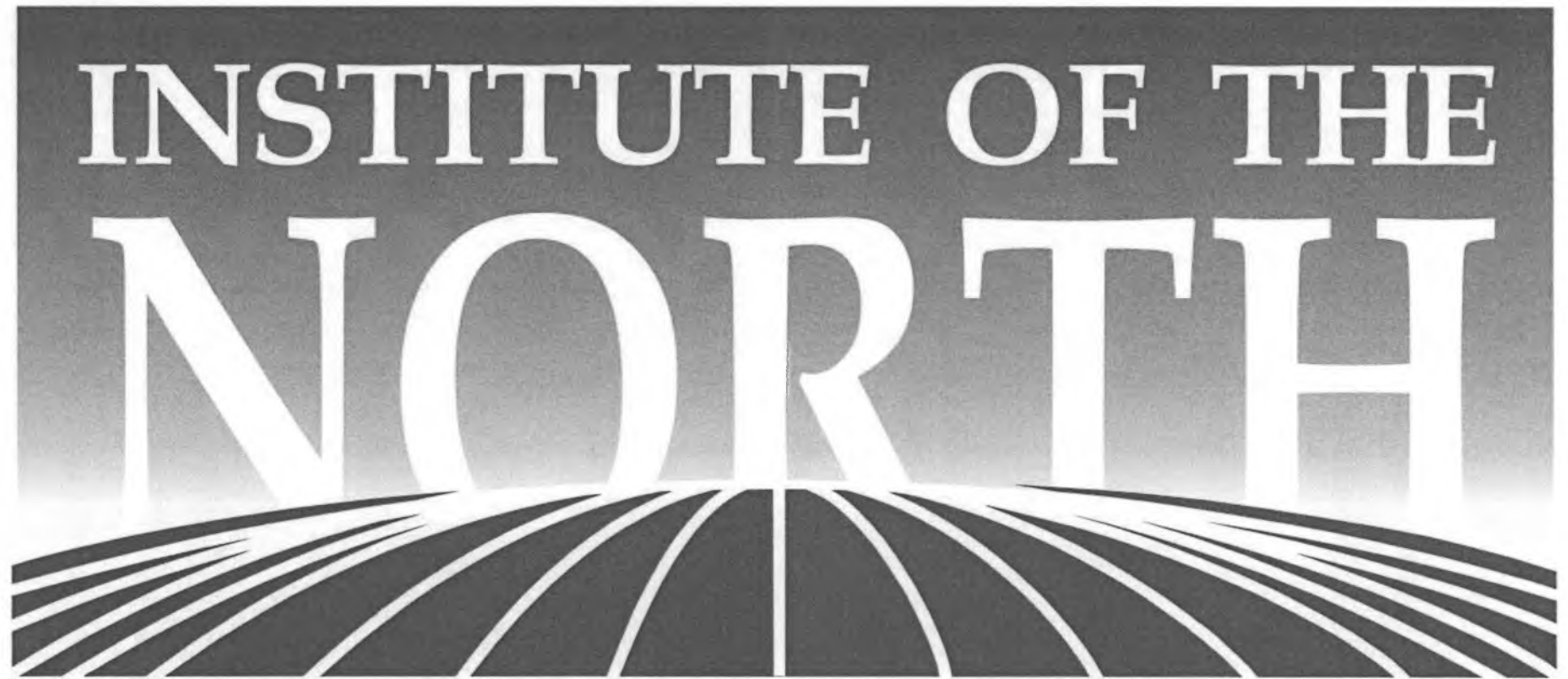
## FY 2012 Governor's Budget with 6% Annual Expenditure Growth

GF Revenue versus Appopriations FY11 to FY21



Source: State of Alaska, Office of Management & Budget, FY2012-10 Year Plan.

**THANK YOU!**



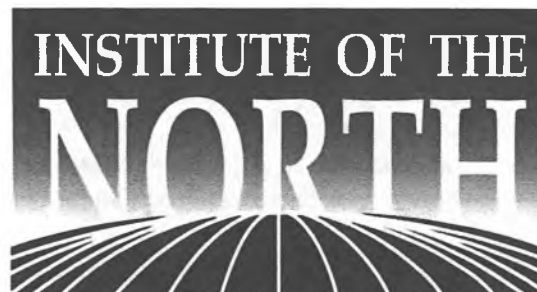
WALTER J. HICKEL, FOUNDER

**Notes from Norway – Alaska’s Experience**  
Governor Hickel tasked the Institute of the North with the mission to understand the reality, richness and responsibility of the North. He would have been first in line to join us this year to learn about Norway’s model for doing exactly that.

Ultimately, understanding northern issues has to do with building relationships. Presenters in Norway began and ended their talks with the value of relationships. Whether we were talking about Norway’s role in the Arctic or government’s role with the private sector, the Norwegians we heard from prioritized strong communication and collaboration between parties.

#### Introduction

The rough notes below describe the information 45 Alaskans gleaned from six intense days filled with meetings, presentations and visits with a multitude of Norwegian agencies, industries, and government leaders. The notes are not a comprehensive technical overview of Norway’s model, nor has the Institute of the North taken any position on the ideas herein, but they do serve to illustrate the broad themes addressed during this experience. The reader should see these as participants heard them, from Norwegian experts as tips and insight into how Norway approaches resource extraction, fiscal policy and economic development.



WALTER J. HICKEL, FOUNDER

Outwardly similarities made Norway a target of our consideration, yet it is important to keep in mind that Norway is different than Alaska. The government is at all sides of the table, but it’s a reasonable table with reasonable discussions and decisions. Norwegians look at the world differently – people are content, though with high expectations. To accommodate this different way of looking at things, we have to change our mindsets.

Another early lesson was that we shouldn’t begrudge people working together to solve problems; instead, we should promote this approach. A collaborative process includes trips like the Norway Policy Tour – where people from different backgrounds come together and learn new approaches while building strong relationships with one another.

#### **Trivia:**

- Norway is a country that is plugged in to media networks – Norwegians typically read three newspapers a day.
- All seven Norwegian political parties would be considered left/progressive in the US.
- Norwegians work to live, rather than living to work. People are productive but also enjoy life.
- Social welfare is an important part of the Norwegian culture – free education (through PhD), healthcare, retirement, maternity leave (women get a year at full pay; men get 12 weeks paternity leave).

- The Norwegian Government is very conservative about how it spends money (they don't plow streets – often or well – for example).
- Until they are 12 years old, kids are not allowed to keep score in football games.
- Oslo is at roughly the same latitude as Juneau; Hammerfest as Barrow.
- The export value of goods and services in the petroleum support sector is second to actual development of those resources.
- Statoil employees working offshore rigs have a schedule of two weeks on/four weeks off (47% higher salary for offshore workers).
- At one point, Statoil could be considered the largest “hotel” in Norway, with more rooms on oil rigs than any hotel chain.
- Snohvit was developed with the US gas market in mind. Because the US market no longer exists due to shale gas, Snohvit gas is now sent to Japan. It is the world's northernmost LNG operation; there is no platform, and it is at a depth of 300 meter.
- 234,000 people work in the oil and gas sector in Norway compared to 5,000 in fishing and 50-60,000 in agriculture. Because people don't see oil and gas, the general perception is that fishing/farming is much more important.
- Norwegian consumption of electricity is 3x that of Europe, which is already high.

#### Quotables

- We know that oil and gas is in the ground now, and that there is a commercial demand; so develop, but don't spend the money on this generation. (Ministry of Petroleum and Energy)
- We don't spend time looking at other countries to compare ourselves to – if it's working here then there's no need. If you have investment, then don't

change things. If you don't... (MPE)  
[Statoil does work with other tax regimes around the world – dealing with all kinds of different processes – including production agreements, leases and signing bonuses]

- The High North is a natural meeting area for long term cooperation. (Statoil)
- Never underestimate the culture of where you're doing business. (PSA)
- Companies care for themselves; the Norwegian Petroleum Directorate cares for society. (NPD)



#### Economy/Resource Development

Norway's oil ministry starts with two basic premises -- if you're going to develop make sure you can stand the quality test of international measures. Secondly, it is possible to have sustainable petroleum development. Norway is planning on (and expecting) stable and long-term production.

Norway is a petroleum nation – and it's only half developed. Politicians have done a good job of not using this resource immediately, and limiting themselves. It is the third largest exporter

of oil and second largest exporter of gas in the world. As the global need for energy continues to rise – and fossil fuels remain dominant in the energy mix—Norway is contributing heavily to the security of supply. Norway’s Ministry of Petroleum and Energy (MPS) was very clear in that “a renewable world is not just a few easy political decisions away.”

We need to have more than one strategy:

- Oil countries should produce and consume fossil fuels in more environmentally friendly ways.

One barrel of oil developed in Norway has half as much pollution as the world average

- Too little emphasis has been placed on energy conservation and efficiency. We should include energy development as corresponding to community development.
- We must increase renewable energy development and renewables must stand test of life-cycle analysis.



Norway’s North Sea is well-developed, as is the Barents to some extent. There were early doubts about expanding in the Barents, but continued exploration has led to a substantial new find. While the area between the two may have deposits, it is a major fishing area and is environmentally sensitive. It makes sense to connect north and south via pipeline and to increase oil/natural gas development.

Connecting its oil and gas resources to one another, to refineries and to markets has meant an incredible network of seabed gas pipelines reaching 7000 km – the distance from Oslo to Anchorage. Sub-sea oil pipelines span a shorter distance from the platform to the onshore facility (approximately 50-60 km) compared to gas (which is more like 150-200 km).

The discussion of developing some areas and not others sounded very familiar to Alaskans. Local people are interested in development while people in Oslo and other urban areas are interested in protecting it; fishing interests are open to discussion/mutual benefit while environmentalists are committed to no development. Generally, petroleum activity is not mentioned in the press except in a pejorative context; it is environmentally contentious and there remains an urban sensitivity. Petroleum development is not recognized as a key factor of Norway economic success.

The Norwegian government is on all sides of Norway’s resource development – regulator, owner, service, safety and taxation. While people move between these sectors, there is no “leakage”. The government invests heavily up front, thereby costing independent explorers very little. The independent explorers are then bought up by larger companies.

The Storting’s view of oil and gas issues recognizes that energy and environmental issues are at conflict in Norway and works to find balance. In Norway, it is the national government that is in the driver’s seat, which is quite different from Alaska’s competing local and state government agendas.

The Norwegian Parliament’s energy committee travels to other countries to learn best practices, and has been to Alaska. However, the committee adopts whatever the government (MPE and NPD) recommends, using its agencies’ technical expertise. Parties do approach issues differently, though, and there are often fierce debates in Parliament that are open and trans-

parent to the public. It is important for the public to see this dialogue taking place. Parliament's goal is to maximize the utilization/production of its oil and gas resource, recognizing peak oil. Parliament acknowledges the importance of creating good conditions for oil companies in search of resources.

Large oil companies have good relationships with the government and Statoil; they don't have anything bad to say about that process. In this, the government assures their active participation. There are some countries where contact between industry and government is forbidden, others where it's more mingled--in Norway, commercial activities respond to policy, legislation and administration and Norwegian politicians understand what makes commercial activities tick.

The overall aim for Norway is sustainable development – which shouldn't be confused with conservation or preservation. Development requires economic activities to address the social dimension, while also taking care of environment. With implied risk, the conversation must also address probability and possible damage. It's a conversation that requires a good cost/benefit analysis that examines both aspects rather than focusing on one.

States should make sure they get the full value from the resource, rather than trying to get it all at once. Many governments don't have the capacity/knowledge to do it all. Industry will always think that taxes are too high; they made a strong push many years ago to reduce Norway's taxes. The government refused but production did not decrease. Steady production may be explained by the fact that exploration is covered by big incentives; 100% of development costs are deductible.

Norway doesn't have lease auctions or signature bonuses. Instead, they have high expectations and want the best management and expertise; companies are there to perform resource management. Each development project

is very individualized. Three questions drive the selection process: 1) How good are you? 2) How extensive is your knowledge? and 3) How competitive are you in this area?

Companies have six years to fulfill their scope of work. It's "drill or drop" after two or three years—if a company doesn't perform, its license is automatically relinquished. The government does not allow area "squashing" because it's not in their interest.

In its role as a facilitator resource development the government conducts the initial seismic. The initial broad analysis (2D or regional mapping) is funded by general taxation with a budget of 80million NOK. Companies are then responsible for more detailed seismic to determine where to explore.



The nation's economic development strategy – and Statoil's as well – is to recognize the key realities outside of Norway, including:

- Continued and increased European demand;
- IEA estimates of production decline – supplies will have to come from Russia, Norway or Algeria; and
- The Barents Sea as a gateway to the Arctic

In country, Statoil and Petro are developing 50% of the resource and big international companies are developing an additional 35%. Statoil is very dominant in currently producing fields;

but the mix will look more diverse in the future. Petoro, Norway's SDFI (State Directed Financial Interest) is owned and operated by the state, which retains 100% of the value. The company doesn't operate anything; it creates value through investment.

### Statoil

Statoil is a private company. The state owns 68% of Statoil shares, which it can buy or sell just like any other shareholder. More importantly, Statoil acts like a private sector company. Almost all of the crude produced by Statoil is sold globally, with only very small volumes going to Norwegian refineries. The Board of Directors (who are all Norwegian, except for one) sets corporate strategy. While the Board is more or less selected by the government, corporate strategy is not directed by government – there are strict organizational lines in decision-making.

Statoil is the second largest exporter of gas to Europe, after Russia. There is a general feeling that the European market would prefer Norwegian gas. Norway is almost exclusively powered by hydro and doesn't use much gas internally.



Norway's oil development began on the Norwegian Continental Shelf, beginning with Ekofisk in 1979. There was an original expected 20 year/46% recovery from the field; this has now been upgraded twice with current projections at 75%. They do use gas to increase recovery – but then sell it when they're done – and

also use water-flooding (90% water/10% oil). Good reservoir management is their key to high recovery.

Statoil has transitioned over 40 years from shallow to deep water; from oil to oil and gas; from simple to complex reservoirs; from fixed platforms to sub-sea; and from south to north

The company is the largest operator in the world in waters deeper than 100 meters. Their goal is to also be the world leader in CO<sub>2</sub> capture and storage (including at Snohvit, which some in the group visited). Snohvit has a complete sub-sea network including 130 kilometers of sub-sea pipelines with multi-phase flow that take gas from the reservoir to the sea-bed platform, where the CO<sub>2</sub> is removed and sent to a separate reservoir, while the gas is sent to the onshore platform. This type of sub-sea network is a great example of the technology for arctic development.

Offshore production means delivery of oil/gas straight to markets through pipelines (gas)/tankers (oil). The 7,000 km of seabed pipelines are approximately 1 meter in diameter. Oil is taken to underground storage areas where the appropriate quality oil can then be drawn out as demanded by the market.

To work offshore you have to change your mindset and focus on safety. The strategy offshore must be safe and efficient operations in order to maximize the potential. With 34 offshore installations, 18 mobile rigs, plus marine vessels, helicopters and chartered planes it is understandable that Statoil would focus on safety. (See also Regulatory Environment)

For each project, Statoil solicits inquiries and builds partnerships with other companies (such as Shell, BP, ConocoPhillips, etc.). Apart from a small administrative fee, companies don't pay anything for the license; rather, they commit to drilling wells in certain amount of time – and they don't pay taxes until the wells are producing.

Statoil will go where they have better competence than their competitors and where there is a market (Europe or East Asia). They have clearly identified their competencies as being able to operate in very harsh environments, operating in deep water, recovering heavy oil (most easy oil is owned by state-owned companies in other countries with no access for outside companies), and developing gas value chains.

### **Regulatory Environment**

Norway recognizes that its oil and gas industry has a complicated industrial environment – it can't afford to have anything go wrong. Regulatory environments should focus on risk, environment and stakeholder management.

Norway is unlike the US where there is an adverse interest when making regulations. The meaning of compliance is also different. Norway values client understanding of the purpose and importance of the regulator to create an alliance between industry and regulator. This common understanding of the regulator's approach means a cooperative interest in the development of regulations and the production of a framework for the overall regulator environment. A cooperative interest also means upfront work in identifying and managing stakeholder (association, workforce, authority) relations. To have stakeholder involvement, you have to put in place systems for engagement – monthly meetings, working groups, trainings and regular reviews regulations.

In Norway, the stated common purpose is safety. Safety includes personnel, the environment, and the financial value of a company's investment. Safety provides increased income if you are able to create alignment around the issue:

- At the ministerial level – with a national plan, legal basis, and licensing;
- With oil companies – field development, contracting, operations, and marketing; and
- Through the PSA and NPD – detail regulations, guidelines and standards.

Norway didn't come to this common purpose immediately. In the late 1970s Norway had more than 200 people killed in industry accidents. They responded with risk-based thinking, a new system for regulation-making, coordination between agencies, clear lines of reporting to ministries and clarified lines of responsibility. The government shifted from many different regulators to multipurpose regulations/regulators under one agency (NPD). The government bears the burden of cost and communication, but by doing so can stand up to industry as one body.

The Norwegian Petroleum Directorate (NPD) and the Petroleum Safety Authority (PSA) oversee many of the regulation of the oil and gas industry in Norway. The PSA used to be part of the NPD, but the two were split up in 2003 to better separate roles and responsibilities. The government delegated power to both as professional independent bodies – separate from political decision-making – to foster continuity and effectiveness while ensuring that powers aren't overstretched.

The NPD is subordinate to the Ministry of Petroleum and Energy and exercises management authority in specific areas. The NPD's mission is to create the greatest possible value for society from oil and gas activities by means of prudent resource management. They can do this by leveraging their technical expertise, which is very different than that of the policy/political employees at MPE. The NPD also communicates reliable information to build public confidence in oil industry.

Both the NPD and PSA made strong arguments for Norway being the most transparent country in the world because of the amount of information they are willing to sharing – with academics, with community stakeholders and with industry! A great example is their commitment to data management – data comes to the NPD from all sectors, especially industry. The NPD receives all by-logs, core data, and seismic data

and then posts all of it on their website. Companies can also visit NPD to see core samples (2000 NOK covers administrative costs).

A core precondition for sound petroleum management is capacity in the public sector. There must be policy administrators and regulators who understand the risks and the rewards of the industry. Sound petroleum management also requires fully competent companies. For Norway, that also means companies who move their business model to incorporate Norway's model of social welfare.

To operate in Norway, companies must demonstrate their competence. They must apply for formalized PSA approval (a company like Statoil doesn't need to do this as it is already an experienced operator) prior to being considered for operation. Prequalification is conducted by NPD, who audits the company based on its:

- Financial capacity;
- Technical competence; and
- HSE – management system.

Competence also includes the huge technological advances that need to be incorporated into processes. Regulators must also understand the ongoing changes in the business (parts of production moves onshore, integrated on-shore/offshore with intelligent fields – ICT, video conferencing)--competent regulators are experts in their fields. The state can't pay talented individuals as much as the private sector, but people move to government for good reasons (back and forth, very often).

At PSA, there are teams of supervisors/experts who manage various groupings of industry (i.e., Statoil is monitored by one group; new explorers managed by another group; big international companies by another; etc.). These teams are able to evaluate competence regularly, including conducting on-site audits of rig operations.

The NPD, on the other hand, is responsible for finding new fields. It works to:

- Gather data and map unopened areas

- Open new areas
- Award exploration licenses (it can grant directly)
- Award production licenses (decision rests with the MPE, with the NPD as an advisor)



The decision regarding which fields are "mature for opening" is political, thus production awards are political. However, which fields are opened first is a technical decision, incorporating elements such as technical knowledge, expectancy of success, and supportive infrastructure.

Norway has developed a predictable licensing system:

- The company covers administration costs (100,000 NOK) of application.
- There are annual licensing rounds depending on which fields are mature for opening; anything that wasn't developed from the last round goes back into the pool for the next round (there is very strict application of develop or drop, though there can be good reasons for an extension of a year being granted).

- Companies are not allowed to sit on licenses without commitment
- If dropped, a company can re-bid
- Frontier areas have biannual rounds.



Early in the process companies nominate which blocks they would like to see in the next round. The NPD incorporates these recommendations into its decision. After the MPE announces which are actually open, the companies are allowed to apply. What follows is a negotiation period – the NPD goes through the application and gives a technical expertise ranking (with project-based criteria). The negotiation includes commitment to develop and to work for state interest. Following the negotiation, MPE announces the final award. Companies rarely refuse, and they can't appeal.

Norway's SDFI level of investment is based on a recommendation by industry and the NPD. State involvement reflects the high potential of the prospect and risk involved.

The NPD also works to keep companies from only exporting gas and leaving oil; working with industry to get both out. Increasing CO<sub>2</sub> emissions from petroleum industry has meant increased attention to carbon capture and storage. The NPD has a role in working on this issue as well.

#### *Statoil case study in Alaska*

In 2010 Statoil conducted seismic testing of its 2008 acquisition offshore Alaska. This was the first Chukchi lease sale since 1991.

Marine seismic acquisition is conducted by sending a pressure wave generated by compressed gas that bounces off the bottom and hits a hydrophone (generally 10 cables of solid streamer, 6000 meters long, 100 meters apart) where data is collected. Using the time and velocity they calculate depth, thereby mapping the sea floor and reservoir level.

To conduct the seismic acquisition Statoil used a seismic vessel (12,000 tons; 5 MMO), supply vessel (for fuel/crew; 1800 tons; 3 MMO), and monitoring vessel (197 tons; 3 MMO). Each had marine mammal observers (MMO) on board. They surveyed 2600 sq. km using 12 streamers, more than historic streamer usage in Alaska by other companies (eight)..

For the Marine Mammal Observer program, they used visual observation plus towed and fixed passive acoustic monitoring (hydrophones or streamers). They also conducted the first industrial test of IR camera for detection. The IR proved whale and walrus tracking – walrus had avoidance technique (200 counts). Statoil stopped seismic for three days during the walrus migration, with "heads popping up like mushrooms." It is interesting to note that permitting in Alaska is very focused on marine mammals; in Norway it is fisheries.

Permitting was required 12 months before operations. The company felt it had a good dialogue with authorities. The lack of infrastructure in Alaska was challenging, with Statoil having

additional considerations of finding a location for crew change (Nome) and being able to assure response capacity. Challenges in the operations phase included marine mammal observation, shallow water, limited open water season, and harsh weather. Notably, there were no safety incidents, no oil released, and the survey was immediately stopped (halt pressure release) upon observation of marine mammals. The acquisition resulted in excellent data quality.

Compared to Norway, Alaska's permitting process was very "comprehensive." (It might also be referred to as burdensome, though Statoil was too polite to say so.) It was a lot of work, and in several instances more complicated than Norway's process – it takes five weeks and goes through one agency, which involves many other departments in the decision. But rules and regulations are there to be followed – no further discussion.

Many details emerged from the baseline studies going on in the Chukchi Sea, with cooperation and sharing between Conoco, Shell and local communities, including acoustics monitoring, fisheries ecology, benthic and plankton ecology, mammals, seabirds and physical oceanography.

#### **Fiscal Policy**

Norway's government commits 100% of its resource development revenue to its Government Pension Fund, which is much like the Alaska Permanent Fund. They withdraw only 4% of its value to support government, feeling that this is the right long-term fiscal policy.

In the early years of the oil industry, the government had a royalty system but grew concerned that this didn't result in investment. They moved to a system that focused on raw income, and developed the State Directed Financial Investment (SDFI). SDFI is an investment fund, which renders larger revenue to the government. The government is a silent partner.

There are no property taxes on oil and gas facilities.



Not everything is owned by the government. The majority shares in pipeline facilities have historically been owned by the oil companies, who are now selling to equity investors as a good long-term rate of return. The state invests 46% in pipeline facilities, with a 7% return. Transportation not supposed to be a high profit enterprise – it is a public utility.

#### Government Take System for Petroleum

The Minister of Finance answers to Parliament; there are 300 civil servants (economists and lawyers) who work for MOF and are managed by a Director General. There are seven departments within MOF – 1) administrative affairs, 2) economic policy, 3) asset management, 4) financial markets, 5) tax policy, 6) tax law, and 7) budget.

When developing natural resources, oil companies have to recognize that the resource is immobile, finite, and that it belongs to the people (and that this is a good, legitimate and stable tax base for government). At the same time, government has to recognize that a tax regime should attract investment – giving extra weight to stability, simplicity, competence and predictability (Norway's process has stayed the same since 1992).



The petroleum industry accounts for 27% of share of investments, 46% share of exports, 22% share of GDP, and 28% share of state revenues. Government take is only on upstream activity, through direct taxation and indirect taxes (CO<sub>2</sub> tax, area fee, and state-owned enterprises).

Royalties, a gross-based tax, were phased out because they de-incentivize investment. Companies claimed they wouldn't invest during royalty period. Investment is maximized by taxing net profit. Profits are self-assessed – companies report production, what they're selling for, what they make, etc. There is an audit of self-assessment in the second round (30 staff for this in oil tax department). All information gained is publicly available (ITI aggregate report).

Norway's marginal tax rate on direct production is 78%. Out of \$1 million profit, the government gets \$850,000 and the company gets \$150,000. Oil and gas is taxed separately; offshore and onshore is split as well. Norway taxes the super-profit – or the "resource rent," as it should be termed (the extra-ordinary profit achieved by developing a finite natural resource) – at 50%. Corporate income tax is 28% - combined to produce marginal tax rate.

The SDFI took a loss in its four early years – viewed as a capitalization cost – but has seen strong gains since. The SDFI only takes shares in the most promising fields (20% investment

most recently). Average SDFI investment is 44%. The only objection by companies is when they re-license, having found a field to be more promising than originally planned and then have the government come in.

The SDFI also plays a role in asking good/hard questions of owner/operator. Government has a seat at the table. The SDFI share is talked about prior to lease decision, but then the government (Prime Minister) decides the amount of share in each license, which isn't negotiable once it's offered.

In determining taxes, capital investment is recovered through depreciation over 6 years

- An additional "uplift" deduction is included in order to compensate the producer for the time value of the delayed recovery of its capital investment. In Norway, the uplift is not intended to provide an additional incentive for capital investment.
- The intended effect of the uplift is to create the same result as if 100% of the capital investment was recovered in one year. In the Norway model, any additional "uplift" would result in the recovery of more than capital costs.

There is a personal income tax – 28% general tax, 7.8% in social security, plus a surtax (the total is roughly 50% for highest income bracket, and the employer takes some too). Municipal funds come from property taxes and a part of the wage tax goes to local government – no company tax revenue goes to communities (national budget covers rest).

#### Government Pension Fund

The goal of the Government Pension Fund is to separate spending from current revenues – this supports long-term considerations and future liabilities.

All revenues go to the state budget, and petroleum revenues are transferred to the Fund from there. Returns on investments are also trans-

ferred to the Fund. There is an annual transfer from the Fund to finance non-oil deficit (fiscal policy means the Fund should only spend expected real return; est. at 4%). In good times they use less than 4%, in bad time they use more. Roughly 10% of the government budget is covered by that 4% each year (100 NOK).

A big pile of money requires a good governance system. The Government Pension Fund Act directs the Fund to be managed by the MOF. Day-to-day management is done by the central bank of Norway (Norges Bank), which reports to the MOF quarterly, and the MOF reports to Parliament. The MOF spends a significant amount of time educating Parliament and public about its long-term strategy and risk.

MOF's investment strategy derives from investment beliefs and fund characteristics

- There are clear owner and manager roles and responsibilities
- The principal-agent has strong mandates of detailed benchmarks (which are presented to, and discussed in, Parliament)
- MOF exercises its ownership rights through this process

Since the move to equity investments, there has been public debate about which companies to invest in. It is generally felt that investments should produce a return as well as behave ethically (according to guidelines developed by identifying overlapping consensus among Norwegian population). This process has excluded 50 companies out of more than 8,000.

Points to remember:

- The Fund is not invested at all in Norwegian assets.
- The central bank has an inflation target of 2%, managed through currency management.
- The Fund will continue to grow for 20 years – up until 2030 it will have positive inflow.

- Investment allocations are decided by regional markets.



There is also a much smaller Norwegian sister fund. The original allocation was invested in Norwegian assets in the early 1970s. The “how to use this fund” debate went away when oil was discovered – it was decided to use this wealth to improve Norwegian society.

#### Arctic

The Arctic is a huge area (almost 30 million square kilometers) with only 4 million people and huge natural resources, most of which belong to Russia. When the continental shelves are claimed, 90% of resources will have been claimed by nations. Climate change results in a more accessible Arctic; 80% of the Arctic is accessible this year. There will be significant impacts to consider as access to oil, gas and mineral resources; fishing (though no current stocks exist); shipping; and research increases.



In the Arctic, Norway builds relationships with its northern neighbors through the Arctic Council and facilitates activities that support its agenda in the High North. The High North is an area with a low level of tension – it is not a region of conflict, but of cooperation--“There will be no race to resources.” Disputes that do arise can be addressed through existing structures, laws and forums. Science cooperation is a priority, especially in the realm of climate, fisheries and energy.

The Arctic Council is a consensus body that specifically addresses Arctic issues; its members cover much of the world and account for much of the global economy. Traditionally, the Arctic Council has not been a political decision-making body, but rather a decision-shaping organization. It produces recommendations for the eight Arctic nations to act upon. It is important to highlight that the Arctic belongs first and foremost to Arctic states; which are fully capable of handling issues that arise. At the same time, Norway realizes that other countries may/do have legitimate interests.

At the Nuuk Ministerial of the Arctic Council, members established and signed on to search and rescue protocols. Now, we should expect to see the Council moving into disaster preparedness, in particular, disaster preparedness in response to resource development. Of particular concern is any nation's ability to surge resources into a remote area and have the infrastructure in place to respond.

There is a clear effort to avoid militarization of the Arctic Council, but Arctic nations have been cooperating with one another to determine response scenarios and responsibilities (in fact, the Alaska National Guard recently participated in an exercise). There is a need to move beyond military stakeholders to training and responding to changing environment, fisheries, natural resource management, UNCLOS, search and rescue, shipping efforts, and oceanography. Ap-

proaches in the Arctic must be multi-disciplinary.

Norway's Storting also highlighted its participation in the Arctic Parliamentarians (Alaska's Parliamentarian is Sen. Murkowski) and noted this forum as a good example of cooperation.

Resource development in the Arctic presents an important part of our future. The region is politically stable and increasingly accessible. The coastal states agree that the area is governed by Law of the Sea with no need for new treaties. The MPE was strong in its assertion that there is absolutely no reason to lock it up as common heritage or protected environment site. 30% of world's undiscovered natural gas and 13% of its oil are in the Arctic – to support Arctic peoples. It's not a question of “can we go ahead with this?” but rather, “on what terms?”

Most people cannot grasp the magnitude of the acreage of the arctic and northern continental shelf, nor do they understand that there is an increasingly good understanding of Arctic sub-sea geography and oil/gas reservoirs. Two challenges remain, of course, in Arctic resource development – ice and distance. There are two solutions to ice – withstand or avoid. With deep water you can have sub-sea development and avoid ice; shallow water is more problematic.

Development in the Arctic will be extremely difficult – there will be delays, there will be disappointment—but with patience and persistence there will be success. Successful development north of Norway – where it's not exposed to ice – is a small step toward developing in ice.

A major area of discussion was US ratification of the U.N. Convention of Law of the Sea (UNCLOS). The US is the only major nation not a member of UNCLOS; even though all defense agencies would like the US to join, we have not yet ratified it. It is difficult to explain to our Norwegian counterparts the reasoning. Alas-

kans shared the view that we are losing out on the benefits of ratification.

It was interesting to learn that Russia has as much icebreaker capacity in the Arctic as the rest of the world combined, even including China's seven new icebreakers in production. Russia will have half the continental shelf and more than half the resources. Critically, they have committed to follow existing treaties and international law, which means that competing claims are settled reasonably through bi-, tri-, multi-lateral negotiations.

Moreover, Russia recently hosted a tour of the Northern Sea Route on Yamal (75,000 hp), the world's largest icebreaker. The route was completely ice-free. Russian mapping of the route was fantastic and their navigation systems (GPS and Glosnost) were top of the line. All vessels traveling the route must have icebreaker assistance, oftentimes tied to back of icebreaker traveling at 20 knots. Russia is strongly promoting use of this route, which has implications for Bering Strait and Alaska coastal zones.

#### The University of Tromsø

Here, you can feel like you're in a special part of the globe, where there is room to grow as a people. "We" think that we are at the very center of the world; the north is content, and happy with what they have. Being at the center of the world is partly a joke, but also increasingly true with climate change, shipping, media, and economic considerations.

In 2006, Norway's High North strategy was presented at the University of Tromsø. Prior to the presentation of the strategy, the north was considered rural and remote, provincial, with little geopolitical interest. Some have said no-one cares about High North – it's too secure, and the US hasn't paid enough attention or given it resources to respond (but it is increasingly doing so, which means it's more important).



The High North strategy's overall aim is to increase presence, scope of activities, and knowledge. Key drivers for a renewed focus in High North include:

- Climate
- Russia
- Energy
- Arctic Dimension

With sea ice extent shrinking and increased shipping opportunities (40% reduction in time and cost; no pirates) – one of challenges is mapping and incorrect data/depth of waters. There is a need for search and rescue infrastructure, as well as emergency/medical response. Norway established the Fram Centre as a Center of Knowledge to address these issues.

The development of petroleum resources in the north is a hot topic in Norway right now. There is new optimism, which is a response to global need and new finds. Snohvit is a beautiful example of what high oil prices can do when coupled with new technology (they also used the example of Chinese investment). All indicators point to extreme interest in Arctic resources.

The North needs a research infrastructure to support that interest. UIT has developed five PhD schools with a strong Northern focus. They also run the Centre for Remote Technology, where satellites can send signals down 24 times a day. These signals can sense and spot an oil spill from tanker, as well as monitor changing environments from space.

## Energy, Communities and Fisheries

*(We've combined a few themes that complement but were outside the stated goals of the Tour.)*



### Coastal Affairs and Communities

Norway has balanced development and care for the environment for decades – they have coexisted without any significant incidents. Strict safety standards have played a big role in their success. There is no tolerance for oil spills. Years of experience shows Norway that oil development can occur at the same time as successful fisheries (e.g., the North Sea). At the same time, local communities have a well-established process for submitting input into oil development. In the hearing process, local authorities and organizations are asked to submit comments, as well as participate in parliamentary committee meetings.

Interestingly, the Norwegian Petroleum Directorate manages the conflict between seismic testing and fishing by allocating areas that take into account spawning/migration seasons. They are also responsible for mandatory course for fishery experts and oversee a system for reporting and tracking seismic operations.

Until recently, wild fisheries were larger than aquaculture. With increasing volumes/profits from fish farming (there was pressure to create jobs/income for local communities) the balance shifted recently. Aquaculture is still a young in-

dustry that depends on a long coastal tradition. It provides 20,000 jobs along the coast, with an export value of \$5 million in salmon, rainbow trout and cod. Aquaculture is a partnership between government, research and industry; and the relationship between the environment and competitiveness is one of a) carrying capacity of the sea, b) public interest, and c) long-term economic perspective.

In Norway, many interests use coastal zones. Interests are balanced when compatible and, when not, priorities are decided by Parliament. Seemingly, if a development project were to affect the environment in ways that couldn't be mitigated, the Norwegians don't appear ready to sacrifice their environment.

With only 110 employees, the Ministry of Coastal and Fisheries Affairs is the smallest ministry in Norwegian government. They depend on subordinate agencies and institutions, including the Fishery and Aquaculture Industry Research Fund. The Fishery and Aquaculture Industry Research Fund is industry run and industry financed—it disburses research grants funded by export tax..

The starting point for modern fisheries management was the eye-opening depletion of herring, the largest fish stock in the North Atlantic in the 1960s. It served as a point of departure for national fisheries' policy. Stocks have since come back to old heights, plus some. The modern management of fishery resources is capable of protecting and enhancing species - when one is willing to make the necessary changes. Norway built its management around science, keeping it independent of politics and asking for international input. Norway's fisheries management is focused on research, regulations and control.

Norway cut off its subsidies to the industry in 1990; export values increased and with fewer fishermen, the catch per fisherman increased. A decline in fishermen was intentional – Norway's government prioritized keeping up with the ef-

efficiency taking place in the rest of society. With that in mind, the focus was on earning money, not keeping jobs that don't respond to efficiency. The shift in focus was the only way to maintain competitiveness.



The government used regulatory instruments and strict control measures (sophisticated management) to ensure sustainability; and drew on economic instruments to enhance efficiency. Rather than using subsidy or decommissioning, the government used as "user pays, user gets" model.

Norway has only a small mining industry. However, with demand from East Asia, activity has increased recently. Coal development in Spitzbergen, Svalbard started as private enterprise, but was bought by government and is currently running a small profit. To encourage people to live there, the project was heavily subsidized from the beginning. Svalbard, much like all Norwegian communities, has infrastructure that is paid for by government – roads, energy for local use, schools, universities, hospitals, as well as an Arctic research station that is shared by eight countries.

In terms of research, it is worth noting that there is a research dollar commitment by oil companies as part of their development license – as required by the Norwegian government. The total research budget in Norway is 41.9 billion NOK; of which, 46% is public funding. For marine research, public funding is 64%. Each

sector is responsible for research in its own area, but coordination/integration is imperative.

Norway values knowledge-based ocean management and using the best available science. This means that there are:

- Demands on science – with an emphasis on quality and relevance; and
- Demands on authorities – who have to know what to ask for.

The Norwegian government's greatest challenge is how to meet the high expectations of its people. There has been so much success that people don't have a good understanding when they don't see it and demand more from government to ensure the quality of life they are used to. Two other challenges are also worth mentioning: 1) post-oil future and 2) an increasingly multi-cultural society.

Norway has a political national energy strategy. They adhere to the European Union's decision to move to more renewables by 2020, though this is difficult when the country is run primarily on hydropower already. Therefore, they have begun investing in other European countries to help them reduce their emissions and make the shift to renewables.

All communities are connected to the grid, though some farms still use generators. Norway's commitment to equity in energy costs has developed over time ("we are all social democrats"). All communities pay relatively equal energy costs. A provision in law even gives extra weight to rural areas/remote voters. In general, Norway makes sure that pricing is the same all over country – everyone is entitled to electricity, 98% of which is hydropower. It's a part of the social contract – the government/people support the right to live in remote communities and maintains those benefits/rights.

It's important to remember, however, that Norway before oil and gas was a fully developed society/economy (unlike Alaska). Recent trending, though, points toward people moving to

regional centers or Oslo. The government is using money, information and policy to keep people in rural areas.

### Renewable Energy

Statkraft is Norway's largest hydropower and renewable energy company, contributing 33% of Norway's power generation. Statkraft is also the largest company in renewables in Europe and is in more than 20 countries worldwide. Statkraft produces 89% renewable energy with 283 power and district heating plants.

Much of Norway's success rests on its energy production. The company began over 100 years ago, with hydro plants in fjords where industry was located. Many hydro plants were funded by the Marshall Fund after WWII. The company didn't become private until 1992, but is still 100% government-owned.

Until 1970 the goal was to build the country; hydro was used to modernize. There was some pushback in the 1980s against large projects and the 1990s brought no new investment. Today we're seeing very small projects, but even small projects have environmental challenges. That said, the company provides a great deal of benefit to municipalities – Statkraft is the biggest property tax payer in Norway, and an important employer in small communities.



A big share of the 98% hydro in Norway is from very large installments, many in remote, unpopulated areas. Large reservoirs are hard to fill

up after a couple years of draught, so a lot of time is spent on planning methods for doing this – all of which is impacted by climate variability.

Not surprisingly, the company is focused on competencies – wind, international hydro, district heating, small-scale hydro, flexible European generation and market operations. Moreover, Statkraft realizes that the future depends on its ability to innovate, with a recognized need for investment in research and development (hydro, osmotic, wind). Meeting future energy and climate needs requires high growth and investments in a broad range of renewables.

Global investment in renewables has increased by 100% in the last ten years. In Europe, there is 600 TWh currently, with an EU goal of 1200 by 2020, and by 2050 adding 800 to 3000TWh (which isn't accomplishable with the technologies of today).

Statkraft's core competency is hydro. Many newer stations are being built inside mountains so all you see is lake/river and transmission lines. Storglomvann, for instance, is underneath a glacier that feeds a mountain lake. With snow being the raw material, Statkraft invests heavily in measuring snow and water content using sophisticated methods.

Osmotic power is a new research area for Statkraft, based on EU demand for renewables. They believe that osmotic power should be part of the renewable energy portfolio because of its baseload energy supply with little environmental impact.

What is Osmotic Power? When fresh and salt water meet they have different salt contents – nature requires balance and works to equalize concentrations, therefore releasing energy during that process. Energy companies can capture this by placing a membrane (that blocks salt) in between salt and fresh water, with intent of water still to pass between. Energy capture can

run a turbine that produces electricity, using existing infrastructure.

The technology is well-known for electricity production and transmission – the new element is the membrane and module. The membrane is located in the module/turbine, not in actual river/ocean. Testing in winter environments has been successful but the faster the water flow the better, which may not be the case in the winter as water flows better at higher temperatures.

Osmotic power ensures constant power generation (“baseload”) that will run continuously, thereby complementing wind and solar, which are based on weather. There is only a small ecological footprint (used water put back into ocean safely, thus far); it is a decentralized source of energy, excellent for remote areas that don’t have access to other resources (though the membrane requires clean water – silt would be problematic); and it is a proven technology, which uses current technology in a new way.

The resource potential is significant – global potential (mapping river location and flow) is 1600-1700TWh (about half of energy need of Europe). Work in the coming years is to scale it up and decrease cost.

Wind power is another resource that is increasing. In Norway, there are 245 MW in operation (with 2500 MW under development). All of this is onshore as there is no support scheme offshore. However, Statkraft is currently building the world’s largest offshore wind farm in the UK (9 GW – 5 MW machines, 10 MW under development; and GE just announced a 15 MW turbine).



There are still challenges in wind development, including in HSE – wind doesn’t have a good history of addressing these issues so a large amount of research, study, and education is needed. There remain conflicts of interests to resolve, and offshore wind adds to the complexity with support vessels, infrastructure, competency, and high costs.



**NORWEGIAN MINISTRY OF FINANCE**

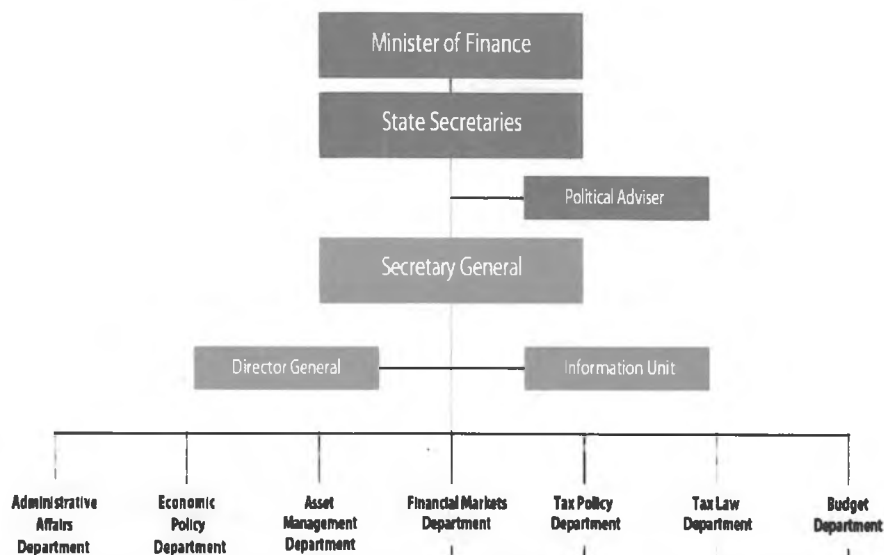
# The Government Take System for Petroleum in Norway

*Deputy Director General Ms. Lone Semmingsen,  
Tax Policy Department  
Norwegian Ministry of Finance  
31 August 2011*

1

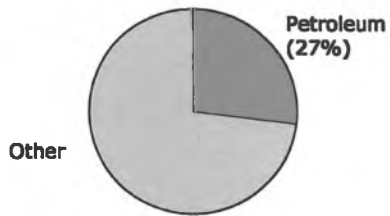
## Ministry of Finance

### The Ministry of Finance

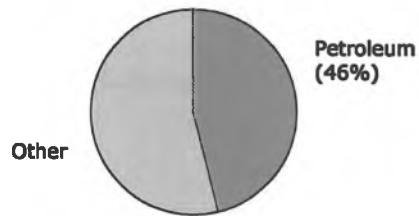


## Norwegian Economic Structure 2009

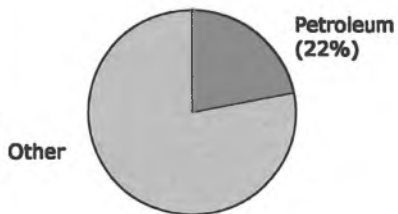
Share of investments



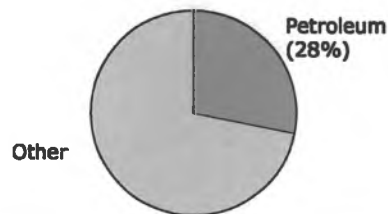
Share of exports



Share of GDP



Share of state revenues

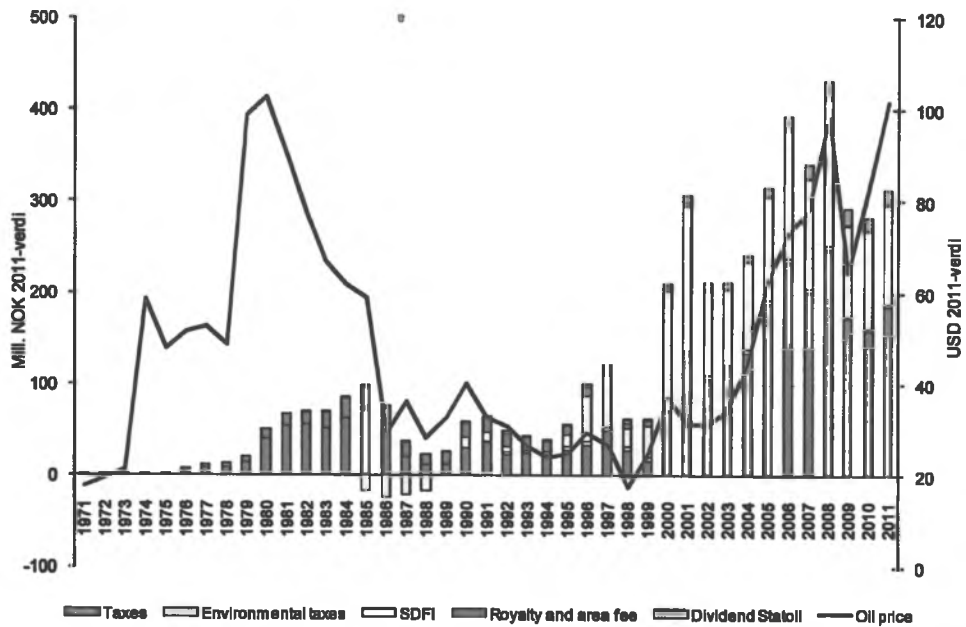


## Taxing Natural Resources - Key Aspects

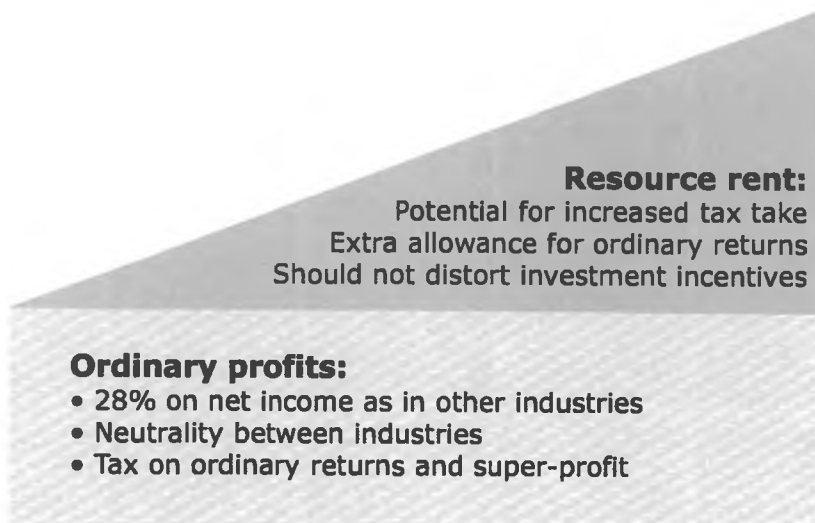
- Extraordinary profits
- Immobile resources
- A good tax base!
  
- Profit based tax rules
- Stability
- Predictability
- Simplicity
- Competent tax administration



## Government Take Composition



## Design of the Norwegian Petroleum Tax



## State Direct Financial Interest (SDFI)

- The SDFI is an arrangement where the state keeps an interest in a number of oil and gas fields.
- Each interest is decided when licenses are awarded, and the size of state interest varies between fields.
- The state pays its share of investments and costs and receives a corresponding share of the gross income from the license.
- When Statoil was listed and partially privatised in 2001, the administration of the SDFI portfolio was transferred to a new state-owned trust company, Petoro.
- Petoro is funded over the state budget and does not receive any of the income from the SDFI.

**Norwegian Ministry of Finance**

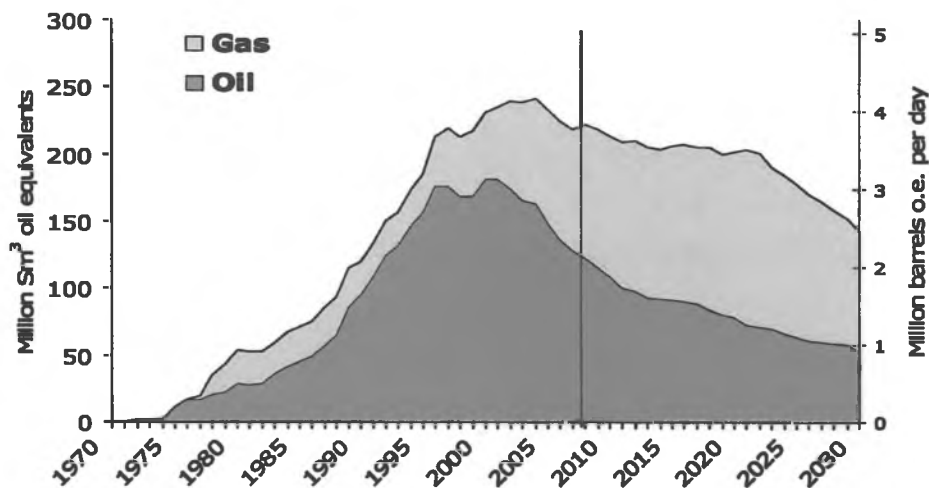
Lone Semmingsen

*Deputy Director General*

Tax Policy Department

[lsc@fin.dep.no](mailto:lsc@fin.dep.no) • [www.government.no/fin](http://www.government.no/fin)

## Petroleum Production on the NCS



### Tax basis - Petroleum

on company basis - ring fenced against mainland

#### Sales income (norm prices)

- Operating costs
- Capital depreciation (16,7 pct. over 6 years)
- Financial costs
- (Deficits from previous years)
- = Ordinary tax base liable to **28 pct. tax**
- Uplift (investment based extra depreciation, 7,5 pct. 4 years)
- (Excess uplift from previous years)
- = Tax base liable to **50 pct. tax**

#### Companies without taxable income

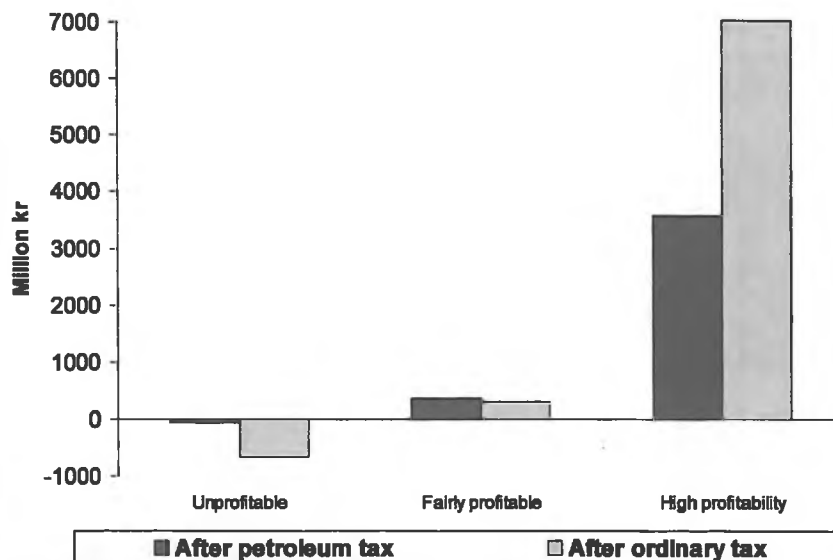
- Carry forward with interest -  $(\text{risk free} + 0,5\%)(1-0,28)$
- Tax refund (pay out) of exploration costs
- Final losses can be sold or tax reimbursed from the state

## Norwegian tax system - Important considerations

- Transparency and good governance
- Stability and predictability in the tax system over time
- Equal tax treatment of all petroleum companies (incl. (partially) state owned Statoil)
- No negotiations with the companies over tax rules
- Simplicity, both for the tax administration and the tax payers:
  - the rules must be possible to enforce (without too high costs)
  - it must be possible for the companies to understand and comply with the rules
- Rely on several instruments to capture a large part of the resource rent
- No subsidies on gasoline for domestic use

## Petroleum Tax – Adapting to Profitability

Exploration project – Value for companies after tax





**The chair would entertain a motion to move HCR 19 from committee.**

- version number (as amended) with individual recommendations and attached zero fiscal note

**Please remind members to sign the committee report**

**[Note for next meeting]:**

We'll be meeting again Tuesday, Feb. 7 for updated from DCCED on:

- Broadband Task Force
- Division of Econ. Development
- Tourism Section

There will be no EDT meeting on Thursday, Feb. 9, due to Leg. Council.

Rep. Chris Tuck had these questions regarding HCR 19, Norway Policy Tour:

**QUESTIONS:**

“When a new area is open for oil drilling in Norway, about How many oil companies on average submit proposals?”

And what is the longevity of existing companies and how many new companies are submitting proposals?”

**RESPONSE:**

Ole Anders Lindseth  
Director General of the Norwegian Ministry of Petroleum & Energy

With regard to your questions I send you the following information:

Before announcing numbered licensing rounds on the NCS the oil companies are invited to nominate blocks they want to see included in an upcoming round. The invitations are sent to all licensees on the NCS and pre-qualified companies. On average over the last 6 years 29 companies have made nominations. These are the numbers for each of the last 6 years:

22. licensing round:	37 companies
21. licensing round:	43 companies
20. licensing round:	46 companies
19. licensing round:	19 companies
18. licensing round:	14 companies
17. licensing round:	16 companies
Average:	29 companies

The number of new companies nominating blocks for the upcoming rounds depends on the definition of a new company. Inserted is a link to a list over companies nominating blocks for the 22. licensing round.

<http://www.regjeringen.no/en/dep/oed/press-center/press-releases/2012/record-interest-in-barents-sea-in-22nd-l.html?id=670318>

A new company would typically be a company which is pre-qualified but not yet a licensee on the NCS. Inserted is a link to a list over pre-qualified companies on the NCS.

<http://www.npd.no/en/Topics/Production-licences/Theme-articles/Pre-qualification/>

As you can see, none of the most recently pre-qualified companies nominated blocks for the 22. licensing round.

Concerning longevity, the majority of the licensees are here for the long haul, so the stability over time is noticeable.

I hope this gives you the factual background you were looking for. I will be more than happy to address any follow-up issues you may want to discuss.

Best regards

## Norway can teach us to control resources

**COMPASS: *Other points of view***

(09/09/11 22:04:13)

Gov. Walter Hickel founded the Institute of the North, which organized last week's Norway Policy Tour. Hickel long advocated that Alaska, as owner of its natural resources, must take control of its resource development for the benefit of all Alaskans.

I was privileged to participate with the legislators and community leaders from Kotzebue, Nome, Bethel, Dillingham, Southeast, Kenai, Kodiak, Wasilla, Fairbanks and Anchorage who met with ambassadors and top-level government and industry officials to learn about the Norway "model" of government-owned and developed oil and gas resources. Having traveled with the late Gov. Hickel to China in 2008, I know he would have been the first to enlist for the Norway trip, keeping with us even on the 18-hour days visiting industry headquarters and facilities across Norway.

Norway directly participates in the development of its resources. Norway and Alaska got into the energy game about the same time with big finds in the 1960s. Norway, however, has maximized its opportunities -- in contrast to the Alaska experience. Major oil companies explored for and developed Norway's first oil and gas fields but the government soon began to play a dominant role.

In 1972, the Norwegian State Oil Co., Statoil, was formed. Today, Statoil is one of the world's largest suppliers of oil and gas, operating in more than 30 countries, and the majority of its shares are owned by the Norwegian government.

Norway also instituted its State's Direct Financial Interest (SDFI) in petroleum operations. Through the SDFI, the government owns an interest in numerous oil and gas fields, pipelines and onshore facilities. As a stakeholder, the government pays its share of investments and costs while also reaping a corresponding share of the profits. This investment gives the government a head seat at the table as a decision maker with full access to all information.

Norway does not give development incentives/tax credits, which are another form of investment but on that return no direct revenue. The government's direct investment in the fields and share in the risk and revenues has not deterred participation, as evidenced by the 60-plus companies holding licenses in its oil and gas fields.

One example of the government's participation is its ownership of 46 percent of the country's nearly 8,000 kilometers of gas pipelines. A separate government entity operates the pipeline system. As we learned from Ole Anders Lindseth, director general of Norway's Petroleum and Energy Department, "Norway doesn't view its gas pipelines as profit centers for its resources." The regulated investment return on the pipelines is limited to 7 percent and therefore, the owners include, in addition to Norway, various pension funds, insurance companies and other entities that are satisfied with a 7 percent return -- which is wholly insufficient for leaseholders such as Exxon Mobil.

By comparison, should the state of Alaska embark on the All-Alaska Gasline/LNG project by taking ownership of the 800-mile gas line as infrastructure, the state would likely receive a federal regulated return of 12 percent -- a solid return for the state but not for the North Slope

leaseholders who must appease stockholders with higher returns.

The Norway model is not a perfect fit for Alaska. But perhaps the most valuable lesson can be learned from Norway's refusal to allow the leaseholders to determine where and when its resources go to market.

Alaska must adopt this same approach. While our gas remains idle on the North Slope, multibillion-dollar long-term contracts in the Asian markets are announced weekly for LNG projects involving the very same leaseholders currently on the North Slope re-injecting our gas. That is wrong. But as long as we remain complacent, Alaska's ability to monetize its gas, deliver low-cost energy to Alaskans and increase oil production will be stifled.

In the same vein as Hickel's famous pronouncement, "You drill or I will," it is time for Alaska to step into its ownership role and proclaim, "We can. And we will."

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Bill Walker ran for governor in the 2010 Republican primary. He is the owner of an Anchorage law firm that specializes in oil and gas and municipal law and serves as the general counsel for the Alaska Gasline Port Authority.

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(www.adn.com)

## Rob Earl

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**From:** ira.perman@importantwork.net  
**Sent:** Thursday, February 02, 2012 9:59 AM  
**To:** Rob Earl  
**Subject:** Re: Alaska EDT Committee question

**Importance:** High

Rob -

Answers to the questions you posed per my notes from Norway:

**“When a new area is open for oil drilling in Norway, about How many oil companies on average submit proposals?”**

**60 – 90 companies. Not only the majors but companies interested in medium and small sized fields (50 – 100 million barrels) which the majors would not be interested in.**

**And what is the longevity of existing companies and how many new companies are submitting proposals?”**

**Some companies have been investing in Norway fields since the beginning of Norway’s oil development (1970) i.e.: ConocoPhillips – the #2 producer in Norway after Statoil. New companies, particularly medium and smaller exploration and operating companies, have joined since Norway went to the Co-investment model in the mid-1990’s.**

Ira

on 2/1/12 1:25 PM, Rob Earl at [Rob\\_Earl@legis.state.ak.us](mailto:Rob_Earl@legis.state.ak.us) wrote:

I sent this to Ole a couple days ago and have yet to receive a response, which is understandable. But it would be nice to have an answer before HCR 19 comes back before EDT tomorrow at 1015 AM. Do you by chance know the answer to these questions or know someone else who might?

Thanks,

ROB

**From:** Rob Earl  
**Sent:** Monday, January 30, 2012 6:04 PM  
**To:** [ole-anders.lindseth@oed.dep.no](mailto:ole-anders.lindseth@oed.dep.no)  
**Subject:** Alaska EDT Committee question

Mr. Lindseth,

Thanks again for responding last week – sorry you weren’t able to participate, but maybe some other time.

I was hoping you could answer what I think will be a couple easy questions for the Committee?

Rep. Chris Tuck asked these during committee last week:

**“When a new area is open for oil drilling in Norway, about How many oil companies on average submit proposals?”**

**And what is the longevity of existing companies and how many new companies are submitting proposals?”**

Thanks much sir!

Rob E. Earl  
Office of Rep. Bob Herron  
907.465.5141

---

Ira Perman  
**Important Work**  
1041 West 23rd Avenue  
Anchorage, Alaska 99503

907-764-6040 Cell/Direct  
907-272-0343 Fax  
[ira.perman@importantwork.net](mailto:ira.perman@importantwork.net)

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## **HCR 19 – Oil & Gas Policy / Norway Policy Tour – Speaker Bios**

### **Brian Holst: Executive Director, Juneau Economic Development Council**

[bholst@jedc.org](mailto:bholst@jedc.org) - (907) 523-2333

Brian Holst joined the Juneau Economic Development Council in February 2008 as Executive Director. Brian has worked in community and economic development for the past twenty years. His experience includes working with diverse groups in challenging economic climates in the developing world, with extensive experience in Latin America and Eastern Europe. He served as a US Peace Corps Volunteer in small business development and has worked as an international consultant, small business owner, and has led large-scale relief and development efforts. Program areas he has managed include micro-finance, small business assistance, community development, environmental initiatives, infrastructure development, housing, and conflict prevention/mitigation. Brian is a graduate of Juneau-Douglas High School.

### **Mark Myers: Vice Chancellor, Research**

[mdmyers@alaska.edu](mailto:mdmyers@alaska.edu)

<http://www.uaf.edu/research/>

Ph: 907.474.6000 Fax: 907.474.5444

#### **Center for Research Services**

University of Alaska Fairbanks  
212 West Ridge Research Building  
P.O. Box 757270  
Fairbanks, AK 99775-7270

Mark Myers serves as the Vice Chancellor for Research at the University of Alaska Fairbanks where he oversees administration of the university's \$123-million-per-year research enterprise and supervises the university's standalone research institutes.

Prior to serving in this capacity Myers held various senior executive, scientific research and petroleum industry positions including the State of Alaska Natural Gas Pipeline Coordinator and the 14<sup>th</sup> Director of the United States Geologic Survey where he managed the Nation's largest water, earth and biological science and civilian mapping agency. Before joining the USGS he was employed as State Geologist and Director of the Division of Oil and Gas for the State of Alaska. He has also worked in various exploration and development positions with Chevron, ARCO, and Phillips Petroleum. In 2003 Myers retired as a Lt.Col. from the Air Force Reserve.

Myers is an internationally recognized clastic sedimentologist and expert on North Slope petroleum geology. He holds BS and MS degrees in Geology from the University of Wisconsin-Madison and a Ph.D. in Geology from the University of Alaska-Fairbanks.

AMENDMENT

OFFERED IN THE HOUSE

TO: HCR 19

- 1 Page 4, line 5:
- 2 Delete "revenue generation"
- 3 Insert "private sector job expansion, revenue generation,"

affordable energy generation,  
value added option,  
competitiveness

Education



- **Gardner amendments M.3 and M.4**

Assuming you want to move the Resolution:

**The chair would entertain a motion to move HCR 19 from committee.**

- version number (as amended) with individual recommendations and attached zero fiscal note

**Please remind members to sign the committee report**

**DCCED: Comm. Bell and DC Thayer presenting together.**

**[Note for next meeting]:**

There will be no EDT meeting on Thursday, Feb. 9, due to Leg. Council. As for next week, stay tuned.

## Rep. Berta Gardner's Proposed Amendments M.3 and M.4 to HCR 19

### Amendment M.3

On Page 2, after Line 21, INSERT a new sentence:

“(13) Norway has developed a free, comprehensive and rigorous educational system spanning pre-school to graduate school that contributes to a vibrant national economy by providing professional expertise for the oil and gas sector; and”

### Amendment M.4

On Page 4, after Line 6, INSERT a new sentence:

“FURTHER RESOLVED that the Alaska State Legislature shall explore measures to support in-state educational systems and training programs necessary to provide world-class, professional expertise in the oil and gas sector to Alaska, and potentially to other states and nations; and be it”

Rep. Berta Gardner's Proposed Amendments M.3 and M.4 to HCR 19

New Amendment M.3

On Page 2, after Line 21, INSERT a new sentence:

“(13) Norway has developed a free, comprehensive and rigorous educational system spanning pre-school to graduate school that provides professional expertise for the oil and gas sector and contributes to a vibrant national economy; and”

~~Amendment M.4~~

~~On Page 2, after Line 21, INSERT a new sentence:~~

~~“(13) Norway has developed a free, comprehensive and rigorous educational system spanning pre-school to graduate school that provides professional expertise for the oil and gas sector and contributes to a vibrant national economy; and”~~