

THE BROOKINGS INSTITUTION  
NORWAY'S OIL AND GAS POLICY AND THE ARCTIC

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## P R O C E E D I N G S

MR. INDYK: Good afternoon, ladies and gentlemen. Thank you very much for joining us here at Brookings. I'm Martin Indyk, the Vice President and Director of the Foreign Policy Program at Brookings. One very important and very active part of the Foreign Policy Program is our Energy Security Initiative which is directed by Charlie Ebinger. Charlie is going to moderate the discussion today.

We're very honored and delighted to welcome Minister Ola Borten Moe who is the Minister of Energy of Norway. Norway is a small, rich Scandinavian country, Nordic country, but it is a giant when it comes to the energy sector. In particular, Minister Ola Borten Moe as Minister of Energy has a very important role in developments in the energy sector. He was appointed Minister of Petroleum and Energy in March 2011. He has had a distinguished career in the Norwegian Parliament representing Sør-Trøndelag County and before that in -- government. He has served on a number of committees including of course the Energy and Environment Committee and he's chaired the Parliamentary Standing Committee on Business and Industry and is also the Vice Chair of the Standing Committee on Scrutiny and Constitutional Affairs. He is I think it's fair to say amazingly young for a Minister of Energy and that is an indication that he is very much a rising star on the Norwegian political scene. We cherish our relationship with Norway here at Brookings. It's been a very productive and fruitful one and we're very grateful for the support that we receive from the Norwegian government, and we're particularly pleased to welcome again back to Brookings Wegger Strommen, the Norwegian Ambassador.

The minister is going to speak about Norway's oil and gas policy in the Arctic. The Arctic is a domain which is of increasing importance. It's an area of international engagement that has come onto the scene in a way that has grabbed the

attention in Washington only recently, whereas for Norway it's been an abiding concern for many years. The potential with climate change for exploitation of the resources there, for the opening of sea lanes and of course the impact that this can have on the indigenous population encompasses a range of issues that we are now focusing on here. It's particularly timely to have the Norwegian Minister of Energy to address these topics today and I would ask you to join me in welcoming him to Brookings.

MINISTER MOE: Thank you very much for your kind introduction, and thank you also for the opportunity of coming here today to discuss matters that are of great importance for Norway, energy issues that I think are also important for the world and things that could come up in the discussion afterward that I'm really looking forward to. It is a great pleasure for me to hold a presentation here at Brookings, one of the most respected, trusted and quoted think tanks in Washington, D.C. I have been looking forward to this and I'm pleased to see so many of you here today.

Initially before talking about oil and gas policy in the Arctic, I feel that it is necessary to emphasize that there is no race for the Arctic and that the Arctic is not a lawless space. I sometimes get the impression that the common understanding is the opposite. That is incorrect. The Arctic is governed by five countries, namely, Russia, Norway, the United States, Canada and Greenland. It is this way now and it will be this way in the future. One possible outcome of meeting claims under UNCLOS which is the United Nations Convention on the Law of the Seas for continental shelves may leave less than 10 percent of the Arctic Ocean not under coastal state jurisdiction. This is the shaded area on the map. This is of course also depending upon the United States rectifying the Law of the Sea Treaty, and why this has not happened yet is puzzling to me.

Let me also say that there are a few differences between the -- Nordic and the Arctic for some other countries. Our part of the Arctic does not only have indigenous people, but we also have cities all the way up to Barents Sea all the way up to the northern part of Norway. We have the Gulf Stream meaning that our part of the Arctic is with less ice or no ice and there is quite a lot of activity in these areas. On Wednesday this week I had the pleasure of visiting Statoil's shale oil operation -- information in North Dakota. In fact, this is the main reason for my visit to the United States this time. The shale oil development in the U.S. could have major implications for the oil market and a need to understand what is happening.

I am a strong believer in open and transparent markets as a key element to increase energy security for both exporters and importers of energy. Price signals are the most efficient way to allocate resources. Actual prices and price expectations for crude oil and innovation, prices and innovation, are the two most important factors behind the surprisingly rise in shale oil development. These factors are also the main reason why oil and gas activities in the Arctic are on the increase again. The world of easy and cheap oil is definitely gone. America's assumed need to import natural gas has vanished over a very short period of time. The breakthrough of shale gas has changed the world of energy. The important question now is will the economic viability of oil sands and shale oil which is produced in North America do the same for oil? Will increased production and more efficient use of oil in the U.S. make North America energy independent, the dream of all presidents since Nixon?

It is too early to know for sure at least, but this American dream definitely seems more achievable than ever before. If it should materialize, it will probably change more than pure market dynamics. Also the geopolitical dynamics of the world will profoundly change. Norway's history as a host nation for oil and gas activities is

considered a success story. Many would say that this is due to luck since Mother Nature has been to kind to us and given us large resources. We have large oil and gas deposits, ample supplies for water, for electricity and power production as well as potential for developments when it comes to minerals. We also have other natural resources like rich fisheries and forest resources. But our success as a petroleum nation has mainly come as a result of the way we have managed our petroleum resources. There are many countries in the world with richer natural resources than Norway also per capita, but Norway's story is different and mainly a success because of the way we have managed this resource.

I can think of several reasons for this. First of all, Norway was a developed, mature industrial nation when we first discovered oil on the day before Christmas in 1969. We had foresighted politicians who decades ago laid a foundation for our present petroleum policy. There has been a high degree of political consensus overtime to ensure sound management of our petroleum resources and stable and predictable investment conditions. International oil companies tend to find the level of taxation higher in Norway than many other places. We tend to answer, point one, it's not as high as you may think, and two, it is predictably high and this is the way it's going to be. I think it's also important that we early decided to invite the international petroleum industry to the Norwegian Continental Shelf and at the same time we started to build our own knowledge and competence. A strong national oil industry has developed over the last four decades.

Since the mid-1990s, income from oil and gas activity has enabled the Norwegian government to establish and grow a sovereign wealth fund called the Government Pension Fund Global. It is now the world's largest sovereign wealth fund and it will provide financial security for Norwegians for generations to come. As we

speak, this fund holds assets worth approximately \$700 billion. Finally, Norway has always combined principles of sound resource management with strict regulations on safety and on the environment. Let me give you two examples. Since we started oil production in Norway back in the early 1970s, flaring associated with natural gas has been illegal except for emergency purposes. Furthermore, Norway introduced a tax on CO2 as early as 1991. As a result, we have one of the world's lowest emissions per unit of oil produced. This is good, but we still have to push efficiency going forward. Some argue that regulations like this reduce competitiveness. On the contrary is my message. It makes us early movers and spurs innovation. And if we go back to our oil and gas industries, they are now delivering their services, their goods on international markets. We are present in the Gulf of Mexico, outside Brazil, Angola and Asia. Next to oil and gas. This has become Norway's most important source of export revenues.

In a country of 5 million people, more than 200,000 people today work within this industry. Today Norway is the world's seventh-largest exporter of oil and the second-largest exporter of gas. To maintain this position and to obtain maximum value creation we need to maintain a high and stable level of activity. Our strategy includes efforts to be carried forward in four areas in parallel and we need to succeed at all four to make this happen. This also tells us that what we are doing is not resource tapping. We are able to maintain production through innovation and to increase human capital and create possibilities for our population.

Number one, the recovery rate from fields in production shall be increased further. When we started back in the 1970s, we typically thought that we were able to produce up to 20 percent of the total resource base. Today we think that we on average could make the recovery rate up to between 40 and 50 percent. And how knows what this number will be in the future. For every percent we are able to increase the

recovery rate we will produce value for the Norwegian society in the range of \$50 billion so that this is extremely important to us. Number two, we need to develop all discoveries that are profitable. Both of these measures are time critical because you need to do it while you have the infrastructure and the competence. Some people tend to think that oil could be produced at a later time. This is not always true. When it comes to increased recovery rate and profitable discoveries, small profitable discoveries, they often rely on existing infrastructure and competence.

Three, active and thorough exploration in areas open for petroleum activities on the Norwegian Continental Shelf. We make new discoveries in areas that already are open, and the most recent example is the Johan Sverdrup field. This was the largest offshore discovery made in 2011. Alone it could hold resources for more than 3.2 billion barrels of recoverable oil. The mind-blowing thing about this field is that it was found on the most mature part of the Norwegian shelf. On a part that was a part of the first licensing round in 1965, the industry has done drillings and seismic for almost 50 years and it showed up last year. Actually, one French company is supposed to have been 1-and-a-half meters from the reservoir at an earlier point in history, probably the 1-and-a-half most expensive meters in world history. Then we will need to open up new areas for petroleum activities. After more than 40 years of production, still we have only opened up half of the Continental Shelf. A necessary requirement for success is healthy competition between capable and motivated oil companies, in particular major oil and gas companies that possess particular skills and competence as well as capital and the ability to take risk. Further, we must develop new technologies and undertake focused R&D programs and activities.

Petroleum activities in the Arctic are nothing new. The first onshore well was sunk in the Mackenzie River as long as almost 100 years ago. Since then more than

400 Arctic oil and gas fields have been discovered. However, their development has been slow chiefly because of the high costs of operating in the Arctic. In our national debate this long story is little known. People seem to think drilling in cold, dark areas is something new and frightening and that oil activities beyond the Arctic Circle is a completely different business than further south. Outside Sakhalin in Russia, oil and gas production in ice field waters is happening today. This is also the situation in Alaska in Prince William Sound outside Anchorage. The presence of ice is handled on a routine basis. A picture of the platform outside Iceland is shown on the slide. This is from the Sakhalin field. By the way, it is designed by the Norwegian company Kvaerner and based on technology and experience that has been developed at the Norwegian Continental Shelf.

Demand for reliable energy supplies and expected oil and gas resources available are the main driving forces behind the growing political and industrial interests in the Arctic oceans. More advanced technologies and higher oil prices are others. As I said earlier, cheap and easy oil is gone. There is no doubt that the importance of the Arctic is growing. I will show you where we are in our waters. In Norway the first well in the Barents Sea was drilled more than 30 years ago. The first discovery was made soon after this. Over the years more areas were made available. However, we needed to enter a new millennium before the first development could start. During the last decade we have been on a very positive trend. Through a thorough process involving all stakeholders we established broad consensus about establishing the Barents Sea as a new petroleum province on the Norwegian Continental Shelf. In the planning process, important elements like integrated management plans are introduced and impact assessments are carried out. We need to base ourselves on the best available knowledge in evaluating future petroleum activities. It has never been our policy to open



all areas on the Continental Shelf at once. We have applied a stepwise approach. This will also be the case for the future.

This slide shows the status for the areas in our north. The green area is available for petroleum activities. The yellow areas have special arrangements. Opening processes are ongoing in the southeastern Barents Sea which is the earlier disputed area with Russia and around the Island of Jan Mayen. The northeastern Norwegian Sea is in a phase of knowledge collection and will probably be decided by the upcoming elections if they are to be opened up or not. We have good progress in our ongoing opening processes. My plan is to submit a proposal of opening these areas for petroleum activities to our parliament in the spring of 2013. This also means that the mandate to open new areas for petroleum activities in Norway is vested with our parliament.

Let me give you an update on all the activities in the opened areas. Optimism regarding our high north today is based on the actual discoveries with development projects and exploration activities in the Barents Sea. Fifteen years ago this area seemed to be without any future. Today our aim is to maximum value from the Snohvit gas field which started its production in 2007, to finalize the developments of the Goliath oil field, to develop Skrugard and Havis to recent large oil discoveries, large enough to support their own platforms, to mature other potential commercial discoveries and to continue to explore areas in licensing rounds. We have two ongoing rounds in the area, the twenty-second round and the APA 2012. We have already seen that there is a great industrial interest in more acreage in the high north. This summer I announced the twenty-second licensing round, and out of 86 blocks announced, 81 are located in the north and 72 of these are located in the Barents Sea, shown in pink on the map. This underlines the fact that Norway as a petroleum nation is moving north and that activities are going to do the same. I am confident that the round will result in awards of

many exciting new blocks. Like in all previous licensing rounds, I look forward to receiving high-quality applications from the industry.

In summary, it has taken more than three decades to establish Arctic Norway as the fully-fledged petroleum province it is today. Thirty years since we started going north we have finally passed the starting line and we are speeding up. A significant part of our energy future will be in the Arctic. But make no mistake. It will still take considerable time to develop the resources. We are prudent and responsible resource managers. These perspectives create promising opportunities for Norway especially in the form of positive economic and social effects in the north. We have seen enormous economic effects in Hammerfest area already generated by the development of the Snow White gas field. Being a member of the government, my wish is obviously that such ripple effects shall materialize in other regions of our high north as well. As part of building a prosperous Arctic future, this is in my view what we all should want for the Arctic at large, not least to the benefit to the population in the area. This requires a clear insight and prudent political decisions both for the short-term and for the long-term. Such decisions must be based on facts, knowledge and experience and they must be taken with due consideration of the potential future effects of petroleum activities on the environment and other users of the area. Petroleum activities in part of the Arctic are demanding, commercially, environmentally, technologically and climatically. Handling of these challenges requires knowledge, creativity and innovative skills from the petroleum industry at large. As always, I firmly believe that these challenges can be met. The industry is innovative and has overcome big challenges before. Therefore, these challenges will not stand in the way of growing oil and gas activities in the north. This being said, it is important to note that the Arctic represents differences or challenges depending on what part of the region we refer to. For example, one big difference

between the Arctic in say Alaska and the Norwegian Arctic waters is the presence of the Gulf Stream, with ice in Alaska, clear waters in Norway. In order to develop petroleum activities in the high north further in a responsible manner, we need that industries, politicians, governments and consumers together have the capability, flexibility, attitude, skills and creativity to address the challenges and implement sound solutions. The contract between society and the industry is fragile and this I think is an important focal point. In Norway the license to operate depends upon a contract between the industry and the population. The population demands security for the environment, ripple effects and possibilities for development and grown onshore. I think this contract is in place in Norway today, but to keep this license to operate this contract has to be renewed every day. The industry must deliver safe and responsible operations every day. The Macondo accident was a wakeup call. The likelihood of such accidents ever happening again is reduced considerably through joint industry efforts and requirements by public authorities. Accidents on the scale of Mocondo must be avoided in the future. No one of us can afford something like that happening again.

Petroleum activities on the Norwegian Continental Shelf are based on the highest standards of health, safety and the environment. This of course is also true for our activities in the Arctic. It is the common responsibility of each of the Arctic coastal states and the petroleum industry to implement and apply such standards. To succeed, dialogue between our countries is very important. The same goes for sharing of experiences, transferring of knowledge and discussing lessons learned. Such dialogue is important on the political level and even more important between our experts and the industry itself. This is important in itself and it is necessary for maintaining license to operate. To ensure that petroleum activities in the Arctic also benefit societies, we are occupied with ensuring local and regional ripple effects. In our experience, such ripple

effects are obtained through activities offshore. Without activities offshore, there will be no ripple effects onshore. To ensure the prudent exploitation of oil and gas resources in the Arctic, we must further develop and ensure the use of new cutting-edge technology in order to protect the environment. The role of the petroleum industry in this process is also extremely important. It is a matter of responsibility, a responsibility that the industry is fully aware of and is implementing every day. Close operation and interaction with the scientific community are essential elements if we are to achieve our overarching goals for the high north. I have therefore decided to establish a Research and Competence Center focusing on challenges related to petroleum activities in Arctic environments. The center will collaborate with leading research communities in Norway and abroad.

In conclusion, Norway will continue to be a stable and predictable supplier of oil and gas. We will develop our part of the Arctic. The responsibility of developing the Arctic lies with the coastal states. There is no legal vacuum in the Arctic. Thank you for your attention.

MR. EBINGER: Thank you, Mr. Moe, for a very profound overview of the challenging parts of the world obviously for the future of the oil and gas industry. While we're getting miked what we're going to do is I'm going to ask just one or two questions and then we'll have about 20 minutes of time for questions from the audience. When we go to the audience, if you would please identify yourself and your institutional affiliation, but most importantly, ask a question rather than make a statement.

You come out, Mr. Minister, very strongly that the Arctic governance by the littoral states is in place functioning and that there is certainly no lawlessness in the area and I certainly would agree with that. However, we know that there are other countries of the world that have a different view of that either because they believe that global climate change is affecting themselves directly, a position articulated quite strongly

by India and Singapore for example, as well as countries such as China, Japan, South Korea and others either because of the interests in access to fisheries in the region or under the doctrine in their view of the common heritage of mankind that they ought to at least if not have sovereignty, have a seat at the table so to speak in the Arctic Council. I was wondering if you have any further amplification on that or whether you feel that your initial position that the littoral states are the governing body and we should leave it at that.

MINISTER MOE: I would opt with the last one very clearly. I think that it's very important to state that this is a matter for the coastal states. I hope that you will ratify the Treaty of the Law of the Sea. I think there is no doubt that almost the entire area will be under direct control of the different coastal states and this of course means that this is as much Norwegian, Canadian, Russian and American waters as any other waters. I also think that all these countries have over decades and centuries proven that they are sound and responsible resource managers, and I think that every state should continue to do just that. This is not saying that no one else is entitled to have an opinion, that no one else is entitled to have sound views on how and what and when. But when it comes down to the table or to the hard facts, this is a question for the coastal states.

MR. EBINGER: Thank you. My second question, and this goes back to a wonderful opportunity that I had back in 1975 to visit Svalbard and become acquainted with the provisions of the Svalbard Treaty, which of course as I read the treaty at least at the time it was signed many years ago, granted equal access to Svalbard to the treaty's signatories while clearly recognizing Norwegian sovereignty. Is that interpretation is correct, does the Svalbard Treaty in any way affect the future prospects when oil and gas exploration might move farther north into the Svalbard archipelago in terms of how countries that were signatories to the treaty might have particular access or the right of access to the region for hydrocarbons?

MINISTER MOE: From our point of view, it could do so if it turns out that there are resources that the Norwegian government will approve to be developed onshore. When it comes to the offshore areas, our position is that this is a part no doubt of the Norwegian Continental Shelf and shall of course be developed as such. But as you know, onshore developments and onshore access to resources are regulated by the treaty and you will also at Svalbard as many of you know find substantial Russian activities mining coal.

MR. EBINGER: Thank you. Let's open it up to the floor. I hope we have some spirited questions coming.

SPEAKER: Travis from the Institute of World Politics. You spoke mostly about oil and gas exploration. Can you speak to the possibilities of using the Arctic for energy transportation?

MINISTER MOE: I think that if we see the waters clearing up as to more time with ice-free waters, this will no doubt make the sea route between Europe and Asia a lot shorter. That will not only be important for energy production but also for all kinds of transportation of goods. This could change the dynamics between Europe and Asia. When it comes to energy transportation, there is already at least in our waters a quite substantial amount of energy production and transportation. A lot of it is done by boat. And we need together with Russia for our part to pay attention to this transportation to avoid accidents and to have capacities to clean up if an accident should occur. This is something that we pay a lot of attention toward. Of course no one would like or can afford something going wrong in these waters. But as I said initially, there are a lot of people living in these areas both in Norway and in Russia and there are a lot of activities in the waters already not only energy but also other kinds of transportation and activities.

SPEAKER: Brian -- Green Strategies. My question is about the Arctic Council and your view on the degree to which the council should have international standards. You say that all of the Arctic states are responsible resource managers, but I'd say that some are more responsible than others, and it's in all, particularly Norway's, but everybody's interest to have responsible standards applied throughout the region. Do you think there is a role for the council to play in setting policy across the Arctic states or should it remain within the domain of all the sovereign nations?

MINISTER MOE: I think that the Arctic Council has a very important role to play as the moderator, as a place for developing knowledge, for initiating research, for having a system that ensures the fact that we are able to share this information, do discuss this information and what it means. But at the end of the day I think it will still the responsibility of each of the coastal states to do the actual resource management of these areas. I don't see it as opposition positions. It's just fulfilling -- each other. The Arctic Council is very important.

MR. EBINGER: Is there anybody else on the floor?

SPEAKER: I'm John -- from the World Bank. I have a couple of questions concerning these new developments for exploitation of in particular gas but also oil in the U.S. So far they haven't really put much downward pressure on the world market price for gas. It's only happened locally, but over time that probably might be the case. Do you have any ideas of whether that could affect Norwegian policies in any way? Are price trajectories for gas and oil different than they were before as a result of these new developments?

MINISTER MOE: I think that there is no doubt that the developments in the United States have already affected Norway. If you take the Snow White facility in Hammerfest which is our first LNG facility finished in 2007, this was designed and built for

the American market, but by the time we were able to finish the factory there was no American market. We were able to send I think one shipload of LNG from Snow White and Hammerfest to the U.S. Of course the reality of the Norwegian market profoundly changed over just a short period of time. When it comes to how is the shale gas revolution going to affect international oil and gas prices, I think there are many things pulling in different directions. A lot of it has to do with domestic policymaking in the United States. Are you going to allow the export of oil and gas resources or is this something that the United States is going to develop mainly from its domestic markets? That's one very important question. Also how is the world economy going to develop? If things are going good in Europe and in Asia and in Africa, demand will pick up and we will see long-term high prices on energy no doubt. My view, I'm an optimist, I think that we will have sound economic development globally pushing energy prices if not upwards, at least keeping them at a fairly high level. And I also think that easy oil is gone meaning cheap oil is also gone and that will make it economically viable to develop the kinds of resources that we are talking about here, deep water high north and that affects Norway heavily.

MR. JENNINGS: Randy Jennings with P51 Consulting. My question is regards to Greenland. With Greenland being an Arctic player but not a sovereign state yet increasingly sovereign, do you see Greenland as replacing potentially the Danes eventually? They've had a difference between seal hunts between what Greenland wants to do and what the E.U. wants to do. Then what is your interaction as Petroleum Minister with Greenland and then with Copenhagen?

MINISTER MOE: We have of course close cooperation with both, and as you may know, Greenland is not a member of the European Union and Denmark is. The relationship between Greenland and Denmark is of course a question that Greenland



and Denmark have to sort out for themselves, but no doubt both are going to be important parts of the development in the petroleum. Greenland is an enormous area. I do not think that the seal issue is going to be of great importance, and by the way, I think the Norwegian government and the people of Greenland have exactly the same point of arrival when it comes to seal hunting and whaling; sound resource management.

MS. PARLOW: My name is Anita Parlow with Parlow & Associates. I have a question recognizing that you made a distinction between the warmer waters off Norway and the more ice prone off Alaska for example. If one is thinking in terms of issues such as spill response capabilities, anticipation, mitigation and response capabilities, how do you look at how this aspect is emerging realizing on the one hand perhaps it's significant for a 100-year event, but on the other hand there are a lot of other little things leading up to that 100-year event? And given what happened with Shell and their best efforts in the Arctic, how do you look at that dynamic and where are we today with respect to that dimension?

MINISTER MOE: I think that there is a profound understanding among the different governments and the industry that no one can afford a big mistake in the Arctic. And even with the Mocondo, the Mocondo had a large impact in the Norwegian domestic debate, although this was far away from Norway and a lot of things were very different. But it was a wakeup call and it reminded us all that things could go wrong. I think that we have just started to discuss and debate how we're going to meet this challenge together, not necessarily in the way of developing common capabilities, but to have systems, to have research, innovation and technology to make it possible to handle an event if it should occur, but most importantly, how to prevent such a thing from happening. This is one of the areas where I think that it is very important to have interaction between the states, between the companies and between the research

institutions. I am quite optimistic when it comes to the big question, will we over time be able to move farther north? In the way I know this industry, it is extremely innovative and has at least in Norway been able to answer to the society's demand for more security, for better solutions and for sound resource management and there is no reason that this development should end so that there is interaction between the governments and between the government and industry and the research institutions.

MR. EBINGER: I think we have time for maybe one more question because they're on a very tight schedule to see Secretary Chu this afternoon. Michael?

MR. RATTNER: Michael Rattner with the Congressional Research Service. I'd like to thank you for your presentation. It was very interesting. I have two questions. The first one is probably a short one. I was wondering if you had any advice for the people of North Dakota when it came to flaring. Given your remarks, I'd be interested in what you told them. And the other question is more I guess a philosophical question. A couple of times in your presentation you talked about or you mentioned that the era of cheap oil is over. Does the same apply for gas, which I don't think it does? I'd appreciate your thoughts on will the world move toward consuming more gas, and what would it take for that to happen?

MINISTER MOE: When Norway introduced its ban on flaring in the 1970s it was not because we had serious consideration for climate change. I don't even think that it was invented back then. But it was from a resource management point of view. Flaring a large amount of gas is really a waste of resources and opportunities for development. So we did it, and of course to ban flaring was a very strong incentive for developing infrastructure to make use of this resource. Today at the Norwegian Continental Shelf you will find the biggest offshore pipeline system in the world supplying Europe with around 20 percent of its gas consumption. There are differences between

the Norwegian Continental Shelf and North Dakota. But I felt a very strong feeling also among North Dakotans that flaring gas is a waste of resources and they knew that every year they flared enough gas to heat the entire state. So it's not only from a CO2 emission point of view, but also from a resource point of view. Their projections for the future were that in a few years they would be able to reduce flaring from around 30 percent to a single-digit number. I would very much welcome such a development for many reasons, and I do think that authorities, the government and politicians have a saying when it comes to an issue like flaring. I think you're right that it is not necessarily a very -- I said the end of cheap oil. I think that what's happened already in the U.S. on gas no doubt has changed gas markets for decades to come, maybe generations. But it's also worth noting that when it comes to unconventional gas resources, these resources are literally everywhere in all parts of the world, even onshore in Norway under our capital Oslo. I do not think we will drill. I think that there are possibilities for developments also in Europe and no doubt in a country like China. If you look at the numbers from IEA, the International Energy Agency, I think their last report was called "The Golden Age of Gas," I think that we will pretty much move into that direction. It's going to be driven by three things, the conventional gas markets and pipeline markets which Norway heavily depends upon today; the LNG technology is going to be just as important in the future as it is today; and then you have the unconventional resources on top of that. Gas as a bigger part of the global energy solution in my head no doubt is going to happen and this is a major advantage. It will reduce emissions and increase efficiency, and what we now see in the United States I think is quite mindboggling. You are reducing your emissions faster than man other or any other industrialized country and at the same time increasing your ability to compete. That seems like a good deal.

MR. EBINGER: On that note I'd like you to join me in thanking the minister for a very interesting presentation.

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