## **IENE-conference on Energy and Foreign Policy,**

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By Mr. Sverre Stub, Ambassador of Norway to Greece.

Many thanks to the Institute of Energy for South-East Europe for inviting me to address such a distinguished audience.

My presentation will focus on four parts:

- Norway as a contributor to energy security.
- TAP A Norwegian-Swiss project in South Eastern Europe
- Energy and climate change
- Carbon Capture and Storage

Let me start by giving you some key figures on Norway's oil and gas production:

Norway is currently the world's fifth largest oil exporter, down from second place a few years ago. In return, we have just moved up to be the second largest exporter of natural gas. Norway provides some 30 % of Western Europe's gas consumption, and 16 % of EUs overall consumption. As a non-member of the EU, Norway's energy dialogue and cooperation with the EU, is very close, and important for both. One can speak of a true energy interdependency between Norway and the EU.

Our share of gas supply to the EU is likely to increase, in spite of imports from Russia, Algeria, and other producers. Norwegian gas is exported through offshore pipelines to terminals in Germany, Belgium, France, England and Scotland. Current capacity in our pipelines is 120 billion cubic meters (bcm). And last year we saw the first LNG-shipment.

Norwegian gas production has tripled since 1995, and is today around 100 billion cubic meters (bcm) per year. We expect a further increase during the next decade to a level between 125 and 140 billion cubic meters pr year.

Norwegian oil production is currently around 2.5 million barrels per day (mb/d). We expect this level to be maintained until at least 2015. Almost all our oil and gas is exported, since we can rely practically speaking 100 per cent on renewable energy sources, i.e. hydro, to cover domestic electricity needs. We are now planning for major investments in wind energy, where the potential along our long coast is almost unlimited.

The cost level of production on the Norwegian Continental Shelf is high. Our ability to maintain a high level of production is to some extent dependent on fairly high oil and gas prices. Some predictability in price development is more important the further north we move our production. The North Sea is no no longer the biggest challenge. Production has moved to the Norwegian Sea and is now slowly moving to the Barents Sea in the High North.

Increased supply from Norway contributes to the diversification of gas sources which, in turn, adds to the security of supply. Norway is committed to remaining a reliable, long-term exporter of oil and gas. Our sales are commercial and never exploited for political purposes.

The potential of the Barents Sea is important for European security of supply. Norway's cooperation with Russia in the energy sector could be essential in developing a new energy province in the Barents Sea/High North. The major Norwegian oil- and gas company, StatoilHydro, has been invited to participate with a 24 % share in the initial development of the giant Russian Stockhman field, together with Total 25% and Gazprom 51%.

## **2. TAP**

Developing stronger relations with emerging gas powers in the Caspian region will also be important for Europe. Norwegian companies are active in that region and we are strengthening our governmental and commercial relations with the relevant countries. We think good relations with the Caspian/Central Asian states is essential to stimulate a rational development of their oil and gas sector.

StatoilHydro has a 25,5 % share in the Caspian gas field Shah Denis. As we all know this field can be a major future supplier of gas to south and southeast Europa.

There were several references this morning to the plans for a gas pipeline from Turkey through Greece to Italy, TGI. Not everyone may be aware of plans for an additional or alternative pipeline project called TAP, or Trans-Adriatic Pipeline. The partners in this project are Norway's StatoilHydro and the Swiss Group EGL.

TAP would from Thessaloniki go more straight west than the TGI, through Albania and cross the Adriatic Sea where the distance is the shortest, to Puglia in Italy. Here the sea depth is also lower. One of the challenges today is to fill planned pipelines with sufficient gas. An added advantage of the TAP is that, as mentioned, its partners already have access to gas supply sources in the Caspian region.

The TAP project company last June filed with the Greek Regulatory Authority for Energy (RAE) a design, construction and ownership petition. TAP has also applied to DESFA for long term transit rights.

TAP can make a considerable contribution to the diversification of gas supply and security of supply for the European gas market. The pipeline can be operational in 2012, with an initial capacity of 10 mill. cbm., which could later be doubled.

## 3. Climate/RES

The share of fossil fuels in global energy mix will increase. We're told this over and over again by both the IEA and the European Commission. We may not like the increased share of fossil fuels. I, as a true environmentalist since I was young, do not really like it. I want to see more solar and wind energy, not the least in a country like Greece with its vast unexploited potential. We need develoment of large scale new renewable energy resources for a rapidly increasing share of the energy mix. This will require bold political decisions and strong financial and other incentives. The price will be high, but the alternative is to say to future generations that they have to carry the inevatibly accelerating burden. Do we want that? Do we have the conscience to do that?

The EU goal to reduce CO2 emission by 20 per cent by 2020 is a first step. Some say the Energy & Climate Package is ambitious, others that it is insufficient. I belong to the latter. For my part I wonder for instance why the auto industry is lobbying so strongly for less ambitious measures. They seem to focus mostly on the problems in lowering emissions. The car manufacturers should instead have a positive and pro-active approach and see the challenges before them as technological and business opportunities.

## 4 CCS

The Commission has just tabled a seven-point action plan to realise its energy and climate vision. Let me single out one of them: backing research. The Energy Commissioner said last week that Europe is lagging behind on research into next generation of low-carbon and renewable technologies. He added that the Commission now will work to stimulate the construction and operation by 2015 of up to 12 large-scale fossil fuel plants to demonstrate CO2 capture and storage technology.

The EU and Norway cooperate closely in these efforts. Norway has more than ten years of successful CO2 storage experience and is presently developing a test centre and two full-scale CCS-projects. We invest a lot of money in this cleaner energy technology.

Let me quote from the latest World Energy Outlook from the International Energy Agency, IEA, that was released last week:

"Preventing catastrophic and irreversible damage to the global climate ultimately requires a major decarburization of the world energy sources". Unquote.

Norway's position is that

- Carbon capture and storage is one of the most promising technologies to achieve vast reductions in the emissions from the production and use of fossil fuels
- CCS-technology will complement other climate change mitigation actions by providing an option for using fossil fuels, including coal, during the transition to a low-carbon economy
- It offers the potential to reduce CO2 emissions by 85 to 95% from coal and gas fired power plants
- It also offers a large potential for reduction in emissions from other industrial processes
- It will be impossible to reach the goal of limiting the rise in global average temperature to 2 degrees Celsius, which both the EU and Norway support, if we don't have a broad international deployment of carbon capture and storage

Norway is convinced that CCS is both a viable and essential part of the solution for a lower-carbon energy future. The increasing understanding of the value of CCS-technology in the EU, I think including in a still somewhat sceptical Greece, is encouraging.

Also encouraging was Barack Obamas reference to clean energy in his first press conference as president-elect.

I think we now may witness not only negative climate change, but also a positive change that we can believe in.

Thank you for your attention.