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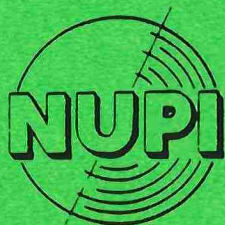
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**NORSK UTENRIKSPOLITISK
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Perspectives on the Role of Norwegian Gas

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The Reserve situation on the Norwegian Shelf

The history of oil and gas exploration in Norway is a short one. It was not until 1975 that the first commercial production of oil came under way. At that time, gas was relatively little discussed, as oil formed the main focus of attention. But with the start-up of production from the big Frigg gas field in 1977, Norway became a major exporter of gas to the UK. The field delivers 16 BCM p.a. during the plateau production period, which is assumed to last until 1989. The gas is delivered via two pipelines to St. Fergus in Scotland. Gas also started to flow to Emden in Germany from the Norwegian Ekofisk-field in 1977.

Gradually Norwegian exports of oil and gas reached about 50-60 mtoe p.a., with an approximate breakdown of 50% on each. In 1984, gas exports totalled 26,5 BCM. Exports to Britain made up almost 14 BCM, which amounted to 52% of total exports. The second major taker of gas was West Germany, with 6,5 BCM or 25%. France, the Netherlands, and Belgium took approx. 2 BCM each, which represented an 8% share of Norwegian exports for each country. The continental buyers form a consortium and do as such not buy gas individually from the producer.

Britain, then is, by far the most important buyer of Norwegian gas. It was therefore a major turning point in Norwegian gas history when the British government turned down the offer of buying further quantities of Norwegian gas from the big Sleipner-field in 1985. The Sleipner field, which could have started



production in 1990, would have had a plateau production of approx. 11 BCM p.a. during the last part of the 90ies.

In addition to Sleipner, which seems to have been put on the back-burner for the present, Norway's biggest challenge is to sell the Troll field. This is a giant field with gas reserves of at least 1300 BCM. One concept for field development envisages a plateau production of 15 BCM from the mid 90ies. The field is situated in deep waters of about 300-350 m, and this means that the development of Troll will be a pioneering effort. It also means that the gas from Troll will be expensive.

Apart from the two big gas fields, Sleipner and Troll, several smaller gas fields have been found. These are partially situated off mid- and north Norway, and will thus prove to be expensive to develop because of the need for extensive infrastructure.

In total, the estimated break-down of proven reserves on the Norwegian shelf shows that they are made up of 2/3 of gas and 1/3 of oil. In addition it seems that the finds off the north Norwegian coast mainly consist of gas. (Apart from in the Barents Sea, where the prospects mainly indicate oil. The government has recently passed a bill which opens up for exploration drilling in the southern part of the Barents Sea). 1)

The picture that emerges from this is that the substantial part of Norwegian proven and possibly also probable reserves are gas. This in turn means that it is of vital importance for the country to be able to sell gas if it is to retain a sizable petroleum sector. Seen in this perspective, both the rejection of Sleipner and the not-so-good prospects in the continental gas market serve to illustrate the severity of the situation. Also in the perspective of international security it would seem

important that Western Europe does not rely too much on gas from the Soviet Union.

The Markets:

So far Norway has faced two markets for gas, the UK and the Continent. After the rejection of the Sleipner deal this may not remain so to the future. First, the UK as an immediate market for Norwegian gas is probably unrealistic: second, the UK market may become linked to the Continent in the future. The European gas market might thus become one.

There are essentially five countries that are present and prospective takers of Norwegian gas: The UK, West Germany, France, Belgium and possibly Italy. The Dutch are also importers of Norwegian gas, partially because they will need gas imports in the future to cover domestic demand as the production from Groningen declines, but mainly because the Groningen gas, which has a low calorific value, needs to be mixed with high calorific North Sea gas. Future demand for Norwegian gas may, however, be diminished as the Dutch step up their own offshore production.

The size of future demand for Norwegian gas in the UK is very difficult to assess. The official reason for rejecting Sleipner was that the UK had enough indigenous reserves to cover domestic demand. These reserves were not specified, and doubts have been raised as to how realistic the postulate of self-sufficiency is. This remains to be seen, but in need of imports the English have the option of gas imports also from the continent with the construction of a cross-channel pipeline. Norway is thus not the only possible gas exporter to the UK. The privatisation of the British Gas Corporation which was recently announced may not make a

difference with regard to export/import policy, as it seems certain that the government will want a strong hand in this. The possibilities for further Norwegian imports seem to depend on two main factors: One, whether a cross channel pipeline will be built and thus allow for Dutch and possibly Soviet imports, and second, whether the English are economically prepared to favour development of domestic reserves that may not be commercial by today's criteria. The future for Norwegian gas in the UK market is thus bereft with uncertainty. This is particularly dramatic for Norway in view of the fact that the UK took as much as a 52% share of Norwegian gas exports in 1983. The present supplies to the UK, mainly from the Frigg field, will gradually level off until the mid-nineties.

The second largest market for Norwegian gas is West Germany with a 25% share. West German imports of gas rose during 1984 due to increases in deliveries from the USSR. The latter exported about 13,5 BCM to West Germany in 1984, a rise of almost 24%. Imports from the Netherlands dropped by 7,3% over the same period and Norwegian deliveries dropped by 1,2%, and amounted to approx 6,5 BCM. The overall picture for gas, both produced domestically and imported, looked like this: The Dutch delivered a 30% share of German gas consumed, Soviet suppliers amounted to 24,5%, and Norway contributed about 14,5%. 2)

Net imports have represented about 60% of natural gas supplies to West Germany. A major part of consumption is thus covered by domestic production. Domestic production will, however, probably decrease towards year 2000, from approx. 16 BCM in 1984 to about 10 BCM by the turn of the century. Total gas demand is expected to rise steadily but slowly towards year 2000 and reach about 50 mtoe at that time, from 45 mtoe in 1985. The growth rate for gas assumed in this projection is 1,3%.

With a slowly declining domestic production and rising demand, West Germany will rely increasingly on imports. These will come from the Netherlands, the USSR and Norway. Ruhrgas, the German gas buyer, has contracted additional deliveries of 2 BCM p.a. from Norway beyond the Ekofisk gas, which is being slowly phased out in this decade. This gas, from the big oil field Statfjord, should start to flow this year. Ruhrgas has recently asked for a renegotiation of the price terms of this gas, arguing that the price makes the gas unmarketable. It is as of yet uncertain what the result of this request will be. Further Norwegian gas to Germany will have to come from Troll and Sleipner, and Ruhrgas has expressed a clear interest in the former field. Competition from the Soviets and the Dutch is, however, very keen. The share of Soviet gas in German supplies could clearly increase well beyond the present 24,5%, especially as the much-discussed 30% limit of supply from the USSR was never a formally agreed upon limit.

Possible increases in Soviet supplies will be connected with German Ostpolitik. As energy is about the only type of commodity that the West wants to buy from the USSR, an increase in East-West trade might in all probability entail further gas imports. There is no particular reason why a strict 30% limit should be upheld. The number is not based on specific criteria, but is only a "rule-of-thumb" number. USSR imports may as well be higher than 30%, but probably not very much beyond that, as the security dimension of large gas imports from the USSR is part of the "political climate" surrounding gas. In other words, because this gas is coming from the East bloc, sound commercial diversification of sources will take this political factor into account. This means that what is usually termed commercial diversification, will have to take into account political factors. There seems to be little reason for expecting a renewed discussion of the security dimensions of gas on a political level, in e.g. the International Energy Agency. Gas is for time being not very controversial, and is in oversupply in the Western European market.

Apart from the security aspect of natural gas, price will naturally be important with regard to the size of imports. But price is only one factor among several with regard to gas. The possibility of increased trade between the two countries, the gas seller and buyer, seems to have gained in importance over the last few years when one looks at deals struck between European countries and two major suppliers of gas, the USSR and Algeria. With regard to these two suppliers, both "balanced trade" possibilities and political questions play a predominant role in determining gas deals. In other words, factors other than price may be very important. It is difficult to say what, if anything, Norway can offer in terms of such "balanced trade" with gas buyers.

The major competitor which Norway faces in the German market is the USSR. Although the Dutch have stepped up their production and intensified offshore exploration - thus abandoning their former policy of conservation; they cannot offer the large quantities of gas that the German market will need from the mid-nineties onwards.

The size of the share of Norwegian gas in future German supplies may therefore to a large extent be determined by Germany's relationship with the USSR. This relationship is not a constant. It is difficult to predict how German Ostpolitik will develop, but it remains clear that trade with the East will remain of major importance to the West Germans. The East represent huge markets for industrial goods. 3) The political dimensions, especially West Germany's relationship with East Germany, is of major importance. It is West German policy to work towards a "reunification of the two Germanies". Realistically one may at least say that having a close relationship with East Germany is of major importance to the West Germans. The extent of trade between West Germany and the East bloc depends on the general political climate between the two, although German trade with the

USSR has not, rather uniquely, depended on government-supported credits. 4) But clearly the "climate" between the two Germanies is at the core of East-West relations and is thus central to the extent of trade between West Germany and the East Bloc. For instance, the Yamal pipeline project was financed on the Western side by Deutsche Bank. 5)

France and Belgium both took approx 2 BCM of Norwegian gas during 1984. The major suppliers to France are Algeria and the USSR. There is a political commitment to buying at least 1/3 of needed supplies from Algeria, although gas trade with Algeria is controversial. The present government has been especially favorable to a close relationship with Algeria, something which was underlined when the government decided to pay a direct subsidy for gas from Algeria. This decision was highly publicized and much discussed. 6) The background for this was an Algerian demand for higher gas prices, which was opposed by Gaz de France. The negotiations were in consequence carried out between the French Ministry of Foreign Affairs and Sonatrach, the Algerian gas utility. The closing of the agreement was announced by the Ministry and was thus removed from the commercial level of negotiations altogether. The subsidy of Algerian gas was officially presented as an export subsidy for French industrial goods, of which Algeria promised to take larger quantities in return for the gas subsidy.

The French emphasis on maintaining good commercial and political ties with Algeria is well-known. The strength of the commitment to this is tested by such situations as the one just described. A conservative government may possibly deal differently with Algeria, but despite governments it remains a fact that there exists a strong commitment to strong Algerian-French relations, and gas is one of the few commodities the French can buy from Algeria.

The other main supplier of gas to France is the USSR where mutual trade arrangement implicitly play an important role. Recently the French have complained that the Soviets have not placed orders with French industry as it was assumed - or agreed on - would happen after the signing of the latest gas contract. Gas intake from the USSR has always received much political attention in France, but may of course nevertheless exceed the 30% limit. However, for the immediate future this is not likely. This means that Norway and Algeria remain competitive for the major part of the remaining demand in the mid-nineties and beyond. But the share of Algerian gas in the future may also change: While it may not go much down, it may possibly go up. This will depend on Algerian gas policy, especially pricing policy; and also on what Norway can offer in competition. Algeria has a past of being a price hawk, and its record in gas negotiations is outstanding - in a negative way - in this respect. But two factors point to the need for treading more carefully in the future: first, domestic oil production is going down, and consequently also oil exports; second, LNG trade does not seem to succeed very well. The conclusion is that Algeria, which depends for most of its revenues on petroleum exports, will have to rely increasingly on pipeline exports of natural gas to Europe. The pipeline to Italy testifies to this, so does the planned pipeline to Spain. In other words, Algeria will have to behave more carefully than before if it is to secure and perhaps gain market shares in Western Europe. This makes for an unknown factor in French-Algerian gas trade: While the French so far have viewed Algerian gas intake as something almost akin to a "necessary evil", but nevertheless as politically important; in the future Algerian gas may become attractive for commercial reasons also. This is a factor which the marketing of Norwegian gas must consider.

Belgium's share of imports from Norway was 2 BCM, or 22% of total imports, in 1984. Algeria supplied 20% and the Dutch 58% of remaining imports that year. As

the Dutch supply is scheduled to decline, Belgium is looking for other suppliers from the mid-nineties onwards. 7) Imports from the USSR are being considered. Demand is expected to rise gradually but slowly from approx 12 BCM in 1990 to 16 BCM in the year 2000. Algerian deliveries are to go to the Zeebrügge terminal which is being built specifically for this contract. The terminal is to be completed in 1986. Imports from Algeria started to flow in 1982 and are being regasified at the Montoir terminal in France until the Belgian facility is completed. Algerian supplies will reach 5 BCM in 1985 and will continue to flow at this level for 17 years. But with the infrastructure for LNG in place it is almost certain that further LNG imports will be wanted when this contract expires.

If we assume that LNG holds at least a constant import share of Belgian intake of 5 BCM (which may be larger, but probably not smaller), Norway's main competitors in the Belgian market will be the USSR and the Dutch. The latter are again offering gas in the market, and since Belgium does not require gigantic quantities of gas, the Dutch may very well be assumed to compete well in this market. The Soviets are in the market, for small as well as for large quantities. The Belgians will probably not want to rely too heavily on Algerian plus Soviet supplies, and are therefore likely to choose Dutch and/or Norwegian supplies for reasons of diversification. But Dutch supplies may, if available, be preferable. After all, Belgium relied a 100% on Dutch supplies until the Dutch some years ago announced a reversal of their gas policy. It was the unavailability of Dutch gas which forced the Belgians to look for other sources of supply at that time.

Italy may be a potential purchaser of Norwegian gas although so far no supplies have been contracted. The share of natural gas in Italy's energy mixture has already reached the 20% limit which was assigned to it in the national energy plan. In 1984 Italy consumed 32 BCM gas, of which 14 BCM was produced domestically.

From 1990 onwards, Italy is projected to import approx 80% of its demand for gas. The increase in demand, which by an independent consultant is estimated to grow from approx. 30 BCM in the 80ies to about 40 BCM in the nineties, will largely stem from the large-scale gasification project of the Italian South, the Mezzogiorno. 8) Generally, both GDP growth and energy growth for Italy are forecast to be higher than the European average: from 1980 to the year 2000, average GDP growth is projected to be 2,4% p.a., and primary energy growth is estimated to be 1,7% p.a.

Imports to Italy come from Algeria, Libya, the USSR, and Holland. Libyan LNG constituted 1,2 mtoe of 1980 imports, but this contract was suspended the same year when Libya ousted foreign companies. In 1984 Dutch imports amounted to 5,3 mtoe. Dutch deliveries started in 1974 with a 20 year span. The first Soviet contract started deliveries the same year and has a life of 26 years. Another Soviet contract was concluded in 1984 for approx 7 mtoe and has a duration period of 25 years. This contract was concluded as a "balanced trade" deal where the Soviets promised to spend the entire payment for gas sales on Italian goods and services. Italian industry complains, however, the Soviets have placed few orders with Italian firms so far. There are, however, that currently talks in Moscow about the building of a plant for cars using methane as a fuel. Italy has the world's best developed expertise in this field. But Italy's deficit on its trade with the USSR in 1984 was 4,300 bn lire, which is the highest it has with any country.

Gas deliveries to Italy from Algeria have been a subject of controversy. The so-called Transmed pipeline was agreed on in 1973. It goes from Algeria to Tunisia, then across the straits of Messina and the Sicilian channel, to the Italian mainland. As a result of delays, construction only came underway in 1978, but by 1980 when the pipeline was over half completed, Sonatrach, the gas company of Algeria,

raised its price demand for the gas from \$ 3.50 mmbtu to \$ 5.50 mmbtu. A dispute arose because Algerian firms allegedly hindered further work on important parts of the project.

When the project had been left idle for more than a year, SNAM, the Italian national gas company, was finally forced to ask the Italian government to intervene in order to negotiate directly with Sonatrach. An agreement between the two gas companies was reached but made conditional upon the guarantee by the Italian government that it pay directly to Sonatrach the difference between SNAM's offer and what Sonatrach demanded. The Italian government finally agreed to do this and now pays a 12% differential directly out of the Treasury as a subsidy to the contract. The subsidy will, however, only last for the first 3 years of the contract period, which originally was for 25 years and for the amount of 10 BCM of gas. After this period, the contract will have to be renegotiated.

It seems that Norwegian gas may be desirable to the Italians from the mid-nineties onwards for commercial reasons. Italy, like other gas importers, would not want to rely entirely on Soviet and Algerian imports. But the Italians express the need for "balanced trade" more clearly than other gas buying countries. They state officially that they will not be able to buy gas without a possibility of exporting goods and services to the gas selling country. With respect to Norwegian gas, such a "deal" would be difficult to strike for reasons of the free trade commitment.

The "security of supply"-issue

Gas trade with the USSR was made an issue in international politics when the U.S. administration in 1982 tried to prevent Western European exports of technology to the building of the Yamal pipeline by instituting an embargo on exports from

American firms or subsidiaries of American firms in Europe. The end of the embargo came in 1984 when it had become clear that Western European nations would not accept any interference in their scheduled deliveries to the pipeline. However, the American worry over the degree of Soviet supplies of gas to Western Europe resulted in a prolonged debate over the issue of security of gas supplies. Also, the International Energy Agency (IEA) took up the issue of supply security and made a study of possible damage in the event if interruptions of the gas flow from the East. The result of the study was that present import loads of Soviet gas did not threaten any importing country seriously. It was, however, recommended that gas imports from one source ought not to exceed about one third of supplies.

Since the height of discussion in 1982-83, the debate has gradually cooled off. Today there is little political interest in the question of security of supply. The issue is not much talked about in the IEA. The degree of U.S. involvement has diminished considerably. This does, however, not mean that security of supply is not considered when countries buy gas. It has always been sound commercial judgement to diversify one's sources, and that is in particular important with regard to gas, as the parties to a contract are bound over a considerable period of time, usually between 20 and 30 years. But this length of the contract period may also mean that it is extremely important not to cause irregularities in supplies. The likelihood of interruptions in gas supplied is probably smaller the more important the long-term business relationship is to both parties. During the debate over supply security the point was often made that the Soviets were very unlikely to disrupt supplies as they needed the income in hard currency from gas sales very badly. This is correct, but the fear of supply interruption is tied to what might happen in a crisis-situation, not in a situation characterized by "business-as-usual".

From the point of view of historical record, Algeria, and not the USSR is the country that has allowed for the most irregularities in its gas supply. Time and

again Algeria has not fulfilled contractual obligations, and often demanded price rises for gas not envisaged in the contracts. Nevertheless, Algeria trades gas with France, Belgium, Italy, and Spain. Security of supply is naturally also here an extremely important issue, and no gas taker would like to rely too much on Algerian gas or LNG.

With regard to the security of supply of Norwegian gas, concern has been expressed in two main respects: One, the possibility of production setbacks due to strikes on platforms is a problem, and second, the possibility of supply disruptions due to sabotage on a North Sea pipeline is there, although few have discussed this possibility in any detail. Production difficulties, which stem from technical factors, like the recent problem with the Ekofisk-platforms which are sinking into the sea-bottom, are a third element.

Yet the problems - actual or potential - which surround Algerian and Norwegian gas - are different from the security of supply problems connected with deliveries from the USSR. Soviet gas deliveries to Western Europe have an outstanding record of success and reliability, yet it remains a fact that all trade with the East bloc eo ipso is part of a larger dimension of international security. Business with the East bloc can never be "business-as-usual" because the trading partners can only act within a framework that is defined by the international political climate between East and West. The East-West relation is never a constant, and it is usually beyond the powers of the trading partners to play a dominant role in influencing its direction. This makes East-West trade in energy so special, as the parameters that define it can change rather rapidly and to the involved, uncontrollably.

West European energy imports from the USSR will probably never rise beyond a level that is acceptable to the IEA and to the Western countries' security concern.

Clearly NATO will play a role here if any one member country approaches an import limit that may represent a danger in a crisis situation. Non-NATO countries do not seem to observe a specific limit of imports from the USSR. All imported Austrian gas does e.g. come from the USSR. The same is true for Finland.

The conclusion to the above is that although the security dimensions of natural seem to be relatively little discussed for the time being, they nevertheless form and will continue to form an important element in international gas trade. Commercial considerations of diversification will have to take this into account also for the future. Nevertheless it is by no means clear how far beyond the 30% "rule-of-thumb" limit for Soviet gas imports some importers may go. After all, each individual country acts alone in diversifying imports, although a major increase in Soviet supply by a NATO country surely will not remain a domestic concern only. A major increase in supply to any one West European country is, however, not very likely. The far more interesting factor is the likelihood of marginal increases in Soviet supply to Western Europe. Such increases will naturally also affect the prospectives for Norwegian gas in this market.

Perspectives on the Role of Norwegian Gas

Norway has more than plenty of gas, and this is gas which is ready for the market in the mid-nineties, which is the time of expected demand in the Western Europe. As it looks, Norwegian gas has a good market possibility in these countries: the UK, West Germany, France, Italy, Belgium, and the Netherlands. Apart from this there are long-term markets in Scandinavia, where parts of Sweden and Denmark are developing as natural gas markets. Finally, Spain may become an interesting market in the long run. For Spain, however, Algeria already provides the gas

needed into the nineties. Also, so far the Spanish market is a small one. Scandinavia, apart from Finland, may in the long run be of interest, but this would be after the turn of this century.

Negotiations over gas to cover West European demand in the mid-nineties will have to be concluded within 1-2 years' time if the gas is to come from Norway. This is due to the long lead time of bringing new projects on stream offshore Norway. This in turn means that West European gas buyers will have to decide on whether they want Norwegian gas fairly soon.

If we look at demand for natural gas in the six countries discussed above for the mid-nineties, the following picture emerges: For France, the authorities recently published the preparatory work in energy for the 9th plan, 1984-1988. ⁹⁾ Here are published detailed analyses of all aspects of French energy. The plan operates with scenarios for all energy forms. For gas, projected demand looks like this:

1990	2000	mtoe
24,5	22,5	Low scenario
25,6	25,2	High scenario

For both scenarios gas demand is expected to decline. This reflects the French policy of putting priority on the use of electricity. ¹⁰⁾ It also reflects the decline of domestic production, which will be only about 1-2 mtoe of gas in the mid-nineties. French demand in the mid-nineties should then lie approx. in the range 23-25 mtoe. Imports needed at this time will then be about 21-23 mtoe. Of this, one third will come from Algeria, another third probably from the USSR. This leaves perhaps 7-8 mtoe for Norwegian and Dutch suppliers.

West German gas demand in the mid-nineties is more difficult to assess as the Germans do not publish official demand projections. Gas represented 15,3% of primary energy demand in 1983 and 16% in 1984. Ruhrgas points out that its market philosophy is to increase gas penetration to approx. 18%. 11) Gas consumption in Germany was 43,1 BCM in 1983, of which 31,6 BCM was imported. Of this 10 BCM came from the USSR, 16,6 BCM from the Netherlands and 5 BCM from Norway. 12) Dutch demand will gradually go down towards the mid nineties. Norwegian gas will have to compete with both Dutch and Soviet supply.

Italian gas demand in the mid-nineties will depend much on the success of the gasification projects in the South. But domestic production is declining, and this makes for a bigger import share. Norway faces competition from both the Dutch, the Soviets and the Algerians in this market. In addition comes the fact that Norway is situated farthest of all suppliers from the Italian market.

The UK will probably be in need for supplies by the mid-nineties. With the existing infrastructure, supplies from the Norwegian North Sea are very likely. Yet the size of demand depends directly on future British depletion policy with regard to developing marginal gas field in the Southern Basin of the North Sea. This in turn depends much on the internal struggle between British Gas Corporation (BGC) and the companies on the shelf. The recently announced privatisation of the BGC complicates the assessment of this question.

Dutch and Belgian demand for Norwegian gas may be assumed to continue, but this demand does not amount to very large quantities.

In sum, then, it seems certain that Norwegian natural gas will be in demand for deliveries from the mid-nineties onward. The question is basically how large this

demand will be; or, in other words, how large a share of demand Norwegian gas will be able to secure. For reasons of diversification buyers are almost certainly bound to take some Norwegian gas, but the interesting question is how much gas beyond a minimum they may be interested in taking. The answer to this depends on price, on ability for flexibility in Norwegian supplies, on stability in deliveries, on the quality of the gas - but also on the development of East-West relations. Further, Norwegian gas may become more attractive if the Norwegians are able to offer some sort of reciprocity for a gas deal. Ideas that come to mind include a toning down of the policy of "Norwegianization" on the shelf so that oil companies from gas buying countries may be invited to compete for a more significant role. The policy of "Norwegianization" stipulates that Norwegian suppliers of offshore goods and services are to be preferred to foreign suppliers whenever competitive in terms of price and quality. This also applies to the role of foreign companies in deliveries of offshore goods and services. Several gas importing countries naturally express the wish to see such a change of policy. On the Norwegian side, such a change may become a necessity in order to sell the more gas. In other words, the Norwegian licensing policy and the policy for goods and services may have to be viewed and possibly reviewed in light of the opportunities in the gas market which a change in these policies may entail. The choice of the current policy of Norwegianization may entail costs which will perhaps be most visible in the natural gas market. Norway cannot - unlike the USSR and Algeria - offer large markets for industrial and other goods from gas buying nations. She therefore cannot offer trade deals like these gas sellers. Also, the free trade commitment of a Western country like Norway interferes with such arrangements. This very important fact makes it even more important that the Norwegian policy of Norwegianization on the shelf is considered in light of the gas market. The idea is not to develop a shelf policy characterized by protection for gas buying nations' goods and services and their oil companies, but rather to develop further towards a "free market situation". The change of

protectionism has been launched against Norwegian firms in the past when foreigners have claimed to have offered the lowest bids. The point is however not whether this be correct or not, but simply that less of an emphasis on 'Norwegization' on the shelf may be necessary in order to compete with gas sellers that offer "balanced trade" opportunities to gas buyers.

It would seem that Norway needs to be more attentive to the significant changes that have taken place in the gas market in view of its expressed aim to sell much gas in the future. Issues that need consideration at present include the price issue, the issue of supply flexibility, and the issue of "reciprocity" which has been discussed briefly above. A fourth issue is that of downstream integration in the West European market, particularly in the West German market.

The issue of price centers on the question of whether Norway wants to try to sell much gas more cheaply and possibly aid in the expansion of demand in the market, or rely on a position of a more marginal supplier. The difficulty in selling "cheap gas" seems to lie in the fact that the USSR is able to meet any reduction in price successfully. Yet it is an open question whether buyers would not prefer Norwegian gas to Soviet gas for other reasons than price if the price were lowered.

The issue of flexibility is currently being widely discussed. Ideas that come to mind include cooperation with the Netherlands, with possible gas storage in Groningen, in an arrangement where the Dutch sell the "swing" and Norway sells the volume. Other ideas center on storage of Norwegian gas in abandoned mines in Northern Europe.

The issue of downstream integration requires a bolder and more offensive gas selling strategy on the part of Norway than has hitherto been the case. The means

for such integration are readily available as Norway has petroleum revenue reserves of a very considerable size. For several reasons it may be a good idea to invest abroad. The question is however what effect such integration may have on demand for Norwegian gas.

These issues are all discussed for the time being. But a process of considering changes in gas policy requires time. This is important to keep in mind since the major decisions regarding gas sales for the mid-nineties will have to be made during 1986 as the lead time for field development of fields in the North Sea is 10, often 15 years. In other words, decisions of vital importance to Norway's gas future will be made this year and the next. Which decisions the buyers will be making depend much upon the choices made by Norwegians on key issues of their gas strategy. In the final analysis, Norway's share in the Western European gas market depends perhaps as much on Norwegian choices as on demand from the buyers. The need seems to be for an offensive Norwegian strategy in order to sell gas rather than the more careful attitude which I would venture to say has been characteristic of Norwegian behavior in gas sales so far.

While this characterization may be an exaggeration of the Norwegian attitude, it remains a fact that Norwegian choices will influence the Norwegian share of the Western European market to large extent. But influencing buyers' decisions requires offensive marketing. Therefore the some major choices of Norwegian gas strategy have to be made - and they have to be made rather quickly in view of the timetable for decisions on gas supplies to Western Europe for the nineties. The challenge is to meet fierce Soviet, Dutch, and Algerian competition, and not to wait for the market share "left over" after contracts with these suppliers have been closed.

Footnotes

- 1) "Om lete- og basevirksomhet m.v." St.meld. nr. 79 (1984-85) ("On exploration activities and supply bases", government paper presented to parliament on April 26, 1985. The area in the Barents Sea which is being opened up for exploration drilling is in the southern part of the Bear Island basin, and represents a north and eastward extension of existing licences in the Tromsø path.
- 2) World Gas Report, 18.2.1985.
- 3) A.F. Ewing, "Energy and East-West Cooperation", Journal of Trade Law, vol. 15, no. 3, May-June 1981. This article provides a good over-view over East-West trade with particular emphasis on energy.
- 4) A. Lebahn, "The Yamal Gas Pipeline from the USSR to Western Europe in the East-West Conflict", Aussenpolitik, vol. 34, no. 3, 1983. The author is the director of foreign credits in Deutsche Bank and was responsible for the financing of the Yamal gas pipeline. He was then director of the Moscow office of Deutsche Bank. His article discusses most aspects of the American-European conflict over the extent of USSR gas imports.
- 5) Ibid.
- 6) See e.g. Le Monde 4.1.1983, 20.9.1984, 3.2.1982, 4.2.1982, 4.2.1982, 10.2.1982, 16.2.1982, 7.3.1982, 24.3.1982, 28.5.1982, 3.2.1982. All the articles deal with French-Algerian gas trade.

- 7) D. Traversin, Director of Distrigaz, "Natural Gas in Belgium. Supply and Demand", paper presented at the Financial Times European Gas Conference, Vienna, 11.12.1984.
- 8) See e.g. the European Energy Report, 8.2.1985 and the International Gas Report, 1.2.1985.
- 9) Rapport du groupe long terme, Énergie, vols. 1 and 2, Commissariat général du plan, préparation du IXe plan 1984-1988.
- 10) For a discussion of the emphasis on electricity in the plan in English, see European Energy Report, 11.1.1985 and "Gas fights for its place in French homes", in International Energy Report, 1.3.1985.
- 11) "Erdgas heute und Morgen", publication by Ruhrgas, Essen, October 1984.
- 12) "Petroleum Intelligence Weekly", 4.3.1985, special supplement.

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