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European Natural Gas Economics in a Global Context: The Longer Run

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The European natural gas scene presently finds itself at a crossroads. The market has been substantially widened, as the default of communism has integrated the countries of Central and Eastern Europe (excluding the FSU) with the western half of the continent. Competitive forces, inspired by developments in North America, and promoted by government policy as well as by new market agents, increasingly challenge the stable monopolistic market arrangements. Wingas' challenge to Ruhrgas' dominance in Germany, the emergence of a spot gas market in the UK, and the threat to prevailing arrangements posed by the Interconnector, soon to bring gas from the UK to the Continent, are prime examples. Border prices of gas have fallen sharply in the late 1980s, in sympathy with the oil price decline. The environmental premium of gas has substantially raised the anticipated long run growth of demand. Technical progress has led to an impressive reduction in the cost of immediate supply. At the same time, concerns are voiced about substantial increases in the cost of marginal supply from new production sources located far away, to satisfy the much expanded future consumption needs.

There are no self-evident answers about the ultimate implications to gas producers and consumers from the important changes sketched above, only a wide array of qualified opinions. The purpose of the conference was to peer behind such opinions in an attempt to establish more strongly founded views on where the European natural gas market is heading.

The contributors—all prominent international authorities on the issues under discussion—represent a diversity of backgrounds. The authors of the four papers which follow, represent a strong academic tradition and background. The discussants, in contrast, all from industry, approach the subject on the basis of profound practical experiences as suppliers or users of gas. This setup leads to a constructive confrontation and valuable cross-fertilization in the debate which follows.

The first paper, by **Peter Odell**, Professor Emeritus Erasmus University, Rotterdam, and Visiting Professor, London School of Economics, challenges the oft professed views that indigenous European gas resources are scarce and depleting, and will soon have to be replaced by distant and expensive sources of supply. Odell's analyses show that the nearby resource potential can go a long way in satisfying a major share of the fast growing European demand in the foreseeable future, and that the needed supplements in terms of imports from outside the Continent can be mobilized at only moderately rising costs and prices. The cost to final consumers may in fact not rise at all, as the removal of monopolistic elements in national markets compensates for rising costs of supply.

In his discussion, **Kjetil Tungland**, Chief Analyst of Gas Markets in Statoil, refutes Odell's supply optimism. Pointing to his company's experience, he contends that Norway, at least, could not accomplish the indicated supply numbers. Neither does he share Odell's optimistic views on the impact that increased gas market competition might have on consumers. Stability, predictability and profitability are necessary prerequisites for the huge investments needed to assure the satisfaction of future demand. Producers may be unwilling to undertake such investments in the unstable environment of a competitive market. Prices would then rise rather than fall.

The paper of **Campbell Watkins**, Vice President, Charles River Associates (Boston), is importantly based on an invaluable set of statistics comparing gas prices and gas shares in different sectors of the energy market, in several European countries and regions in the US. The statistics permit the author to derive conclusions on the degree of competition in Europe and the US respectively. Drawing on US experiences, Watkins' analyses also suggest the institutional changes needed to increase the degree of competition in Europe, and what can be expected as a result.

Povl Asserhoj, Executive Vice President, Dansk Naturgas, too, starts out from Watkins' statistical compilations, but reaches a different conclusion: The data from the US and Europe do not suggest a change in pricing behavior in consequence of the introduction of third party access (TPA) to pipelines, and of a prohibition for transmission companies to trade gas. Institutional change at the transmission company level is insufficient to assure competition in the European gas market. Fundamental changes are also needed at the producer and local distribution levels.

Javier Estrada, Senior Research Fellow, Fridtjof Nansen Institute (Norway), explores the fascinating interplay between the governments, the EU Commission and the main market actors, in shaping the European natural gas market. Perhaps the most fascinating observation in Estrada's paper is the long list of institutional alterations implemented by the market actors in the recent past, which have been little noticed or discussed, but which are fundamentally changing the structure of the gas market on the European continent. In contrast to Odell and Watkins, Estrada believes that developments in the UK market will not serve as a guide to the European Continent, where a much greater degree of public involvement will prevail.

Wilfried Czernie, Vice President, Ruhrgas, challenges Estrada's predominantly political analysis on a number of points. The thrust of Czernie's argument is that the corporations dominating the European natural gas scene have done a constructive job in developing the market, in designing an efficient pricing system, and in assuring very stable supplies. Plans for far-reaching political intervention with these arrangements pose a serious risk of rocking the boat, to the detriment of all.

A fascinating dividing line appears in the conference deliberations so far. The authors of the papers, with a predominantly academic background, all perceive the potential advantage of ongoing change from the monopolistic market structure of the past towards a more diversified set of market agents and greater competition. The discussants, representing the main market actors at this time, invariably profess the advantages to all parties of maintained status quo, and the potential dangers of structural change prompted by politicians and by new developments in the market itself.

The paper by **Marian Radetzki**, President SNS Energy and Professor of Economics, University of Lulea, adds another dimension to the expansion of the market for gas in Europe. Most analyses of such expansion deal with consumption deepening. This paper, in contrast considers the extension of gas use to new geographical regions. It begins by explaining the unimportance of gas in the outlying regions of Europe, and then analyzes in some detail the prospects and preconditions for a large scale expansion of gas usage in Scandinavia, in the context the ongoing evolution and change in the European gas market. Radetzki concludes that the political plans to decommission Sweden's nuclear industry would be a forceful trigger for greater gas use, but that the economics of a pipeline bringing Norwegian gas to Mid-Sweden and South West Finland appear reasonably attractive even if nuclear power in Sweden remains intact. The perennial instability of Swedish energy policy constitutes a serious deterrent to the huge investment required to expand the gas grid.

This paper had a somewhat special interest to the conference, given the predominance of Scandinavians in the audience. Instead of a single invited discussant, therefore, this paper was reviewed by a panel representing current or potential Scandinavian suppliers or consumers of gas.

Bertil Agrenius, Senior Vice President, Energy, Vattenfall along with **Ingela Hedge**, Executive Vice President Fuel Strategies, Vattenfall Fuel, feel that Radetzki is overly optimistic about gas developments in Sweden. A new pipeline system will be warranted only if there is a large scale need to install new electrical power capacity. This will not be the case if Sweden's nuclear industry is permitted to continue its operations. They concur with **Arne Westeng**, Director, Natural Gas, Saga Petroleum (Norway), that with a deregulated Scandinavian market for electricity, power could be generated with gas as fuel, either in Norway or on the Swedish west coast, for consumption in both countries. This would greatly reduce the need for new pipelines. Westeng also points out that the least-cost way to bring Norwegian gas to Mid-Sweden would be through the existing pipeline system from the Norwegian fields, via Emden and northwards through Denmark.

Kurt Lekas, Director Business Development, Stockholm Energi, though strongly positive to the introduction of gas in the Stockholm region, agrees with Agrenius and Hedge that such an introduction may take longer than is subsumed in Radetzki's analysis. Along with **Magnus Buchert**, Director Energy Division, Ahlstrom (large energy consumer, Helsinki), Lekas feels that the political dangers of greater reliance on Russian gas have been exaggerated. Additional supplies from Russia might provide a more economical alternative than supplies from Norway, and might also offer a means for integrating the Baltic states with the Scandinavian grid. A further idea touched upon by these commentators is the possibility that Gazprom, the Russian gas supplier, might use Finland and Sweden for an additional major pipeline to supply gas to central Europe. The Scandinavians might then have a cheap option to tap into that supply system.