Editor's Preface

by Helmut J. Frank (Department of Economics, University of Arizona, Tucson, AZ, USA)

This special issue of The Energy Journal is devoted to the problems connected with the deregulation of natural gas in the United States under the National Gas Policy Act of 1978. This conforms to a policy decision to devote all or part of an issue to a single topic when it is of particular concern and of timely interest. In fact, the response to our decision to publish this gas policy issue has been so great that not all qualified papers could be run within these pages. Therefore, we have limited this issue to updated versions of papers given at the Third Annual U.S. Meeting of the IAEE held in Houston, Texas, in November 1981. Additional papers on gas policy submitted after that date will be published in subsequent issues of The Energy Journal. These papers, originally solicited by the Program Committee of the Houston Conference, have undergone an elaborate process of review (most have been extensively revised). However, they have not gone through the anonymous refereeing process which is standard for Energy Journal submissions. We plan to have more special issues - especially on international topics - when the timeliness of the subject and the number of quality papers available warrant such issues. We invite readers' comments.

Foreword

by Benjamin Schlesinger, James L. Sweeney, Michael L. Telson, and Philip K. Verleger, Jr.

The papers contained in this volume were presented at the 1981 North American Conference of the International Association of Energy Economists held at Houston, Texas, on November 12, and 13, 1981. Government policy on natural gas prices and end uses will remain an area of active interest over the next few years. The Reagan administration has expressed a desire to see natural gas prices fully deregulated. There are also certain features of the Natural Gas Policy Act-most notably the scheduled decontrol of all "new" gas on January 1, 1985, but not of "old" gas - which in all likelihood will need to be reexamined before that date. Historically, Congress and the chief executive have had great
difficulty legislating on this subject. In fact, Congress has enacted legislation in this area only twice in the last 44 years: the Natural Gas Act (NGA) in 1938 and the Natural Gas Policy Act (NGPA) in 1978. This is particularly surprising considering the large contribution domestic natural gas production makes to U.S. energy consumption. It is therefore unclear whether the Reagan administration and Congress will be able to reach agreement on natural gas issues before 1985, despite the significant pressures that will develop to reconsider the NGPA. The ability of Congress to act in this area, and the approach it takes, will depend greatly on a broad and informed public understanding of the economic issues involved, as well as the public and private interests at stake. This volume has been prepared in the interest of contributing to this understanding.

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I. Conceptual Framework

The Gordian Knot of Natural Gas Prices

by Henry D. Jacoby (Sloan School of Management, Massachusetts Institute of Technology) and Arthur W. Wright (Department of Economics, University of Connecticut, and Center for Energy Policy Research, MIT, USA)

Introduction

Federal policy toward natural gas prices is once again the subject of national debate. Thought to be settled once and for all by the Natural Gas Policy Act of 1978 (NGPA), it reemerged as an issue in 1981. The proximate causes of the renewed controversy included candidate Ronald Reagan's campaign promise to seek wellhead price decontrol, and the Reagan administration's attempts (until March 1982) to find a workable decontrol proposal. But the wellsprings of the problem go deeper than this, to the history of gas price regulation, to changes in energy markets since 1978, and to serious defects in the NGPA itself. The natural gas policy problem has grown increasingly complex with time. One is reminded of the Gordian knot of ancient myth. According to an oracle, whoever could untie the knot would rule over all Asia. Many tried and failed, until Alexander the Great - unable to untie it but determined to fulfil the prophecy - cut the knot with his sword, and went on to conquer as much of Asia as the ancients knew.

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II. Problems with the NGPA

The Need to Modify the Natural Gas Policy Act

by Catherine Good Abbott (Division of Energy Deregulation, U.S. Department of Energy, Washington, DC, USA)
Introduction

The current debate over the Natural Gas Policy Act of 1978 (NGPA) has three components: (1) Is the NGPA likely to achieve the goals Congress established for it in 1978? (2) Is the NGPA likely to lead to an extension of controls beyond 1985? If so, what are the consequences of such an extension? (3) What are the costs and benefits of alternatives to the NGPA? This paper addresses the first two questions. Whether the NGPA can achieve a smooth transition to decontrol is critical to any assessment of alternatives. Indeed, if an unintended consequence of current policy were an extension of price controls beyond 1985, the measurement of the costs and benefits of alternatives could change dramatically. We will first review the context of current policies. Second, we will assess the consequences of the NGPA. Third, we will study the consequences of extended price controls after 1985. And finally, we will examine the effects of several alternative assumptions.

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And What If We Don't?

by Robert C. Means (Office of Regulatory Analysis, Federal Energy Regulatory Commission, Washington, DC, USA)

The boundaries of this paper are defined by the assumption that there will be no legislative action on Title I of the NGPA. In addition, I will make several assumptions regarding natural gas markets. First, I assume that a natural gas pipeline will not refuse to purchase gas that it could resell. I assume, in other words, that pipelines will bid the field price of natural gas to a market-clearing level. The alternative to this assumption would be to assume that natural gas pipelines would accept curtailments that could be prevented by additional purchases of natural gas. My second assumption is that there will be a substantial cushion of old natural gas in 1985. If this assumption is wrong, complete deregulation of natural gas in that year would not only be a costless measure but also an essentially irrelevant one. Third, I assume that the natural gas cushion is unevenly distributed. As far as I know, there is no serious dispute about this. Analysts may differ regarding the precise distribution of the cushion, but there is, I believe, a consensus that the cushion is very unevenly distributed, with the bulk of it controlled by interstate pipelines. If this premise is rejected, however - if the natural gas cushion were assumed to be evenly distributed - then the effect of partial decontrol of natural gas in 1985 would be similar to oil-price controls with an entitlements program.

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Lessons from the Origin of the Natural Gas Policy Act

by William F. Demarest, Jr. (Foreman and Dyess, Washington, DC, USA)
The market-disorder consequences of partial deregulation dominate the current debate regarding natural gas-pricing policy. The purpose of this paper is to examine the market disorder from a historical perspective in the belief that an appreciation of the roots of the issue is essential to an effective understanding of this debate. Depending on the relative volumes of gas remaining subject to regulation (the magnitude of their "cushions") some pipelines will be better able to compete for deregulated supplies of gas than others. This fact has profound regional significance. In particular, it may be anticipated that under partial deregulation intrastate pipelines with relatively little gas cushion will be severely disadvantaged after deregulation, compared to their intrastate counterparts.

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III. How Industry Sees the Future

The Tenneco Perspective

Joe B. Foster (Exec VP, Tenneco, Inc. Houston, TX, USA)

A brief comment about the title given to this presentation. If you know the gas industry at all, you know that no one dares to speak for anyone else. Even within Tenneco, we look at natural gas deregulation from several points of view: Tenneco Oil is the country's fifteenth largest producer of natural gas, and it is the only one of the top 20 oil companies that derives more revenue from sales of natural gas than from crude oil. Tennessee Gas Transmission is one of the nation's largest pipeline networks, delivering 11 percent of the natural gas consumed in 1980. Tenneco's diversified manufacturing and processing companies operate in 7 of the 10 most energy-intensive industries in this country. In 1980, the corporation consumed 28.7 barrels of oil equivalent (mboe). As you would expect, when we debate issues such as natural gas prices within our company, every point of view is represented. The Natural Gas Policy Act of 1978 (NGPA) was the most recent effort to substitute the political process for the market process in the gas business. And it is hopelessly out of date, inconsistent with the intent of the Congress that passed the Act, and out of character with the philosophy of the administration elected in 1980.

Pages 69-80

Transmission and Distribution Company Views

by Benjamin Schlesinger (Booz, Allen & Hamilton, Inc. Bethesda, MD, USA)

Introduction

In 1981, a number of proposals surfaced that would accelerate decontrol of natural gas price, at the wellhead beyond the schedule currently mandated by the Natural Gas Policy Act of 1978 (NGPA). At the same time, an increasing number of studies, forecasts, and diagnoses of natural gas supply, demand, and price continue to appear from public and
private sources, including the Department of Energy, manufacturers’ groups, and various academic and other research institutions. Although these generally tend to be increasingly optimistic about the gas-supply outlook and the contribution that gas will make to U.S. energy needs, questions about price deregulation continue to cloud the outlook for gas. Given these concerns, the purposes of this paper are (1) to describe briefly the prospects for natural and supplemental gas supplies; (2) to explain the results of the American Gas Association’s recent analyses of wellhead gas prices, sales, home-heating costs, and consumer costs after decontrol under various decontrol options; (3) to present U.S. gas demand and marketing prospects in the future as we see them; and (4) to offer a set of recommendations.

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IV. The Economics of Gas Supply

The Effects of Decontrol Policy Options

by Steven E. Muzzo (ICF Incorporated, Washington, DC, USA)

Over the past nine or so years, the United States has focused a large portion of its national attention on energy concerns. Indeed, the world economy is in the midst of an economic revolution over the value of one of its most important inputs. A new economic reality - that once cheap energy sources that fuel the world economy are becoming more and more expensive - has forced much of the world, and especially the United States, to reevaluate its policies on energy sources and uses. This reevaluation has been difficult. Although haggling over tactics has consumed a large portion of the reevaluation debate on natural gas policy in the United States, the basic issue has been efficiency versus equity. Government policymakers have attempted to balance these two often contractory concepts, from the Natural Gas Act of 1938, which introduced federal regulation of the transportation of interstate natural gas, to the Natural Gas Policy Act of 1978, which was designed to bring federal regulation of natural gas into line with its increasing value. The Reagan administration has instituted a detailed review of federal natural gas policy which focuses on policy and pricing alternatives to the NGPA-mandated partial decontrol of natural gas in 1985. This review was initiated for three reasons. First, the administration has shown a commitment to evaluate the costs and benefits of massive federal intervention into economic markets. Second, the NGPA provisions designed to gradually bring order to the natural gas market have been undermined by changing world energy market conditions. Finally, natural gas is seen as a potential major contributor to domestic, as well as the world's future energy supply.

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V. Policy Trends: The Future Is Now

The Decline and Fall of Regulation in the Natural Gas Industry
Introduction

A theme that runs through the long, convoluted history of natural gas regulation is the seemingly inexorable expansion of government intervention. Regulation has spawned further regulation; soon after one regulatory gap was filled, another appeared. Municipal franchising and price regulation of gas distributors led to state oversight of intrastate gas transmission, which prompted federal regulation of interstate transmission, followed by control of interstate affiliated field prices and later interstate independent field prices. Finally, the Natural Gas Policy Act of 1978 (NGPA) extended federal jurisdiction to all intrastate field sales. All actions leading up to the 1978 act were directed primarily at ensuring that the price of gas to consumers would not include any sizable excess charge reflecting either a monopoly position in transportation or distribution, or a gap between the actual cost of producing and transporting the commodity and its value to consumers. Since price was not given the freedom to balance supply and demand, it was only a matter of time before the imbalance would become manifest. When it appeared, it brought with it another government imperative: the need to regulate consumption.