

THE EFFECT OF DEREGULATION OF NATURAL GAS ON THE TRANSMISSION
SECTOR: WESTCOAST (DUKE) ENERGY CASE STUDY

by

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ABSTRACT

The natural gas industry in Canada has been going through deregulation to varying degrees over the past quarter century. This deregulation has had an affect on the price of gas, the marketing of gas, and the business practices in the industry. It has also had an affect on all sectors of the industry at various stages during this deregulation.

This project is a qualitative analysis of the effect that these changes in the industry regulation have had on the downstream (transmission and distribution) sectors of the industry focusing on one company, Westcoast (Duke) Energy. This analysis was conducted using a case study to determine the current state of deregulation in British Columbia, the industry structure in the province, a review of the changes Westcoast underwent as a result of the commodity price deregulation, and the potential effects further deregulation might have on one of the major players in the industry.

The major contribution of this project is its provision of a review of the changes that one transmission company underwent as a result of field price deregulation and the provision of some insight into the effects subsequent deregulation of the downstream sector might have on companies. The results of this investigation indicate that, for the most part, deregulation has had positive results on the company and have allowed it to compete more effectively with other midstream

companies. What also became evident during the investigation was that to continue to compete under this changing regulatory framework, business practices within the company required re-engineering to meet these new demands.

Although the combination of deregulation policies to date have helped Westcoast to reduce costs, improve customer relations, and level the playing field with respect to equity in marketing and pricing relative to other companies in the industry there is still substantial discrepancy between Westcoast and other companies in the industry as result of the federal/provincial jurisdictional difference in the regulatory structure.

TABLE OF CONTENTS

Abstract	ii
Table of Contents	iv
Exhibits	vi
Acknowledgements	vii
Chapter 1 – Introduction.....	1
Deregulation Policy Background.....	2
Methods.....	3
Chapter 2 - Natural Gas Industry Regulation and Management in BC	
Introduction.....	11
The Natural Gas Industry.....	11
Management of the Industry	12
History.....	14
Deregulation.....	16
Current Regulatory Structure.....	20
Westcoast Energy and Regulation in BC.....	22
Chapter 3 - Case Study Background	
The History of Westcoast Energy/	26
The Beginning.....	27
Development and Expansion	29
The Stabilization and Diversification	31
Strategic Growth and the Beginning of Deregulation.....	34
Expansion and the Impact of Deregulation	35
A New Owner	36
Summary	39
Chapter 4 - The Effect of Deregulation on Westcoast Energy	
Introduction.....	40
Deregulation from a Westcoast Energy Perspective.....	40
The Industry as a Whole	40
Westcoast Gains from Deregulation	41

The Downside of Deregulation for Westcoast.....	43
Changes to the Gathering and Processing Sectors.....	44
The Effect of Regulatory Changes to a portion of the industry	45
The Effect of the Western Accord	49
Changes to the Marketing of Natural Gas.....	50
The Result of the Elimination of Gas Taxes and Charges	50
The Positive Effect of the Elimination of the PGRT	51
The Effect of the Agreement on Natural Gas Markets and Prices.....	52
Subsequent Regulatory Changes.....	53
Framework for Light-Handed Regulation	55
Incentive Settlements	56
Potential consequences of deregulation of transmission and distribution sectors	58
Summary.....	60
Chapter 5 – Conclusions	63
Implications of these results.....	65
Appendices	
Appendix 1 – Glossary of Terms	
Appendix 2 – The Western Accord	
Appendix 3 – The Agreement on Natural Gas Markets and Prices	
Appendix 4 – Deregulation Questionnaire	

EXHIBITS

Exhibits

Exhibit 1 -	The Companies in the various sectors of the Natural Gas Industry in BC	13
Exhibit 2 -	Makeup of Primary Energy Production in Canada	15
Exhibit 3 -	Natural Gas Marketing: Before and After Deregulation.....	19
Exhibit 4 -	Industry Development Comparison	23
Exhibit 5 -	Westcoast Energy Pipeline System.....	30
Exhibit 6 -	Jurisdictional Court Case Summaries	37
Exhibit 7 -	Impact of Deregulation on Westcoast Energy Throughput	47
Exhibit 8 -	Impact of Deregulation on Natural Gas Prices	54
Exhibit 9 -	Deregulation Tools affecting Westcoast Energy	61

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CHAPTER 1

DEREGULATION OF NATURAL GAS AND THE TRANSMISSION SECTOR: WESTCOAST (DUKE) ENERGY CASE STUDY

INTRODUCTION

The price of natural gas has now been deregulated for almost 20 years. This partial deregulation of the upstream¹ portion of the industry has for the most part achieved its goal. The price of gas decreased in the short term as anticipated, the market has opened up allowing more players to buy and sell gas, and there is less government intervention in the pricing of the commodity². What remains unanswered is what affect did these policy changes have on the downstream (pipeline and distribution) portion of the industry?

Between the upstream point at which the gas is extracted and the point at which it is consumed lies a complex network of transactions among producers, pipelines, local distributors and the ultimate consumer (Broadman, 1983). This raises the question, are the business practices and downstream regulations that were set up under the old policy environment suitable in this new environment? In order to address this question, the following case study on Westcoast Energy provides a review of the changes that one transmission company underwent as a result of field price deregulation. It also provides some insight into the effects subsequent deregulation of the downstream sector might have on the company.

¹ See the Glossary of Terms in Appendix 1 for a definition of terms.

² According to the Westcoast employees interviewed.

Deregulation Policy Background

Regulation of the natural gas industry began “partially due to a desire to protect consumers from unilateral field price increases and partially due to a desire to ensure that Canadian producers received fair value for gas sold in export markets” (Doern, 1991). Changes in the marketplace and industry technology soon raised questions regarding the continued validity of this form of regulation. In response to these questions, deregulation of the upstream portion of the natural gas industry began in 1985. Early deregulation in Canada was first characterized by two agreements, the Western Accord and the Agreement on Natural Gas Markets and Prices. These agreements between the federal and provincial governments involved deregulating the commodity (natural gas) or field price and implementing a number of tax reforms to the gathering and processing portion of the industry. The effect that this change in regulation would have on the downstream (transmission and distribution) sectors of the industry was unknown when the regulation was put in place. Literature exists (Broadman and Montgomery, 1983) that provides some insight into the potential changes that could take place in these sectors. There is also a body of literature that evaluates various changes in the market (Maerz and Coad, 1990; Reid, 1998) and in natural gas supply (Energy, Mines and Resources Canada, 1987; NEB, 1999) post-deregulation. There is even a study of the effect of deregulation on the behaviour of a producer (Yucul, 1990) however, there is little or no research available that produces empirical evidence of the changes downstream companies had to undergo in the wake of this change in field prices. It is this lack of evidence that prompted a case study on Westcoast Energy.

This case study focuses on Westcoast Energy, originally a British Columbia (BC) based company that has been in the natural gas transmission business for over 50 years. It is an assessment of the current state of deregulation in BC, the industry structure in the province, a review of the changes Westcoast underwent as a result of the commodity price deregulation, and the potential effects further deregulation might have on one of the major players in the industry. When this project began the company operated under the name Westcoast Energy Inc. The large energy conglomerate Duke Energy has since taken this company over and the company now carries on business as Duke Energy Gas Transmission. Because this investigation was started prior to the takeover of Westcoast Energy Inc. and the effects of deregulation on the company are a direct result of the way the company was initially structured, the company will be referred to as Westcoast Energy or Westcoast from here on to reflect its former state. There is no attempt in this work to analyze the change in ownership that occurred when Duke Energy bought Westcoast Energy Inc.

The study begins with an overview of the methods used in this analysis, outlining the applicability of a case study and why it was chosen.

Methods

Research into natural gas deregulation is not prevalent in comparison to other natural resource policy issues. Research in this field, particularly as it relates to Canada and BC, focuses more on the environmental and political implications and processes than on the regulatory outcome.

Historically, the research that has taken place in the area of natural gas deregulation has focused on market modeling from an economic perspective or the political justification for natural resource regulation. It has also focused primarily on the theoretical perspective with little attention directed towards the practical application or outcomes evaluation.

For these reasons, a case study approach was selected to provide some insight into the effects of price deregulation on Westcoast Energy, and the potential implications on the company of further deregulation. Westcoast Energy provides insights into a unique regulatory model. Its organizational structure is also different from other companies, which provides valuable insights into the industry. Because of these organizational differences, Westcoast provided an interesting and differentiated circumstance that has been dealt with in a unique way in the policy arena. It is also the uniqueness of this company, operating in a complex environment (both with respect to the industry and the regulatory environment) that provided the rationale for using a single case study as opposed to multiple case studies and multiple sources of evidence versus a single source of evidence.

A qualitative case study has been used in this investigation. I used qualitative research because it is one way of addressing the information needs that revolve around an understanding of the policy issue at hand and a case study because “it contributes uniquely to our knowledge of individual, organizational, social and political phenomena” (Yin, 1994, p. 2). A case study has also been chosen because “case studies have a more diverse set of possible audiences (including: colleagues, policymakers and practitioners,

and special interest groups—such as industry professionals) than do most other types of research” (Yin, 1994, p. 129). Although this project is not likely to be the panacea for any of these audiences, the hope is that it will be of enough interest to those identified to encourage further research and investigation into the area of natural gas deregulation (particularly the downstream sector), in British Columbia and Canada.

As Schramm points out, the essence of a case study is to try to explain why a decision (in this case deregulation) has taken place and with what results (i.e. how it has affected Westcoast Energy).

The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result (Schramm, 1971 – quoted in Yin, 1994, p. 12)

More than 20 years ago, James Coleman wrote, “There is no body of methods; no comprehensive methodology for the study of the impact of public policy as an aid to future policy.” (in Rist, 1998, p. 400). Rist (1998) argues that there is still some truth to this infamous quote, that policy research and analysis has spun off even more methodologies and conceptual frameworks making the area of policy research more complex, not adding the clarity or insight the research was intended to add. It is my hope and intention that this research provides some clarity and understanding with respect to the natural gas deregulation policy environment in Canada.

Cases are studied and recorded in many professional and practical fields, including policy, public administration, and organizational and management studies, and as a form of research, “defined by interest in individual cases, not by the method of inquiry used”

(Stake, 1998, p. 86). As Stake points out, different researchers have different purposes for studying cases and he identifies three types of study: *intrinsic* case study; *instrumental* case study; and *collective* case study. Intrinsic case study is undertaken because one wants to better understand a particular case, “because, in all its particularity and ordinariness, the case itself is of interest”. Westcoast Energy was used as an intrinsic case study because it is a unique company in the way it developed and is currently structured. It was also chosen because it is a well-established company originating in British Columbia, with a substantial history in the industry.

Case studies can also be conducted with a combination of purposes in mind, such as is the case in this instance where the reasons were both intrinsic and instrumental.

Instrumental case study “provides insight into a particular issue, plays a supportive role, and facilitates our understanding of something else” (Stake, 1998, p. 88). Case researchers study “a case” to determine what is common about it and what is different or unique about it. According to Stake, this uniqueness can include: the nature of the case, its historical background, the physical setting, other contexts, including economic, political, legal, and aesthetic (Stake, 1998). In the case of Westcoast Energy, its commonality does not extend beyond the fact that it gathers, processes and transports gas in a similar fashion, using similar technology to other companies in the industry. It has a unique historical background, which is outlined in detail in Chapter 3. It is unique in the legal sense in that it is a company that is vertically integrated (a company involved in more than one step in the supply chain) in the natural gas industry, and in the political sense in that it is regulated in a different way than other companies in the industry. As a

result of the uniqueness of the company used in this case study, the results of the study do not and cannot be generalized to the effects of deregulation on other companies (as case study researchers are often want to do) but does provide insight into the impact of deregulation on a unique company in the industry and provides insight into a corporate response to a changing regulatory environment.

Because of the type and variety of information required in this study, multiple sources of evidence were used to investigate this policy phenomenon including archival records, various documents and interviews. The investigation began with a literature review and I attended a course on the natural gas industry in Calgary to provide the required operational background. Natural gas regulation and deregulation policy was then reviewed to acquire an understanding of the regulatory arena and the rationale behind deregulation as it has progressed to date. The third component of the study was an in-depth evaluation of Westcoast Energy. This study included a detailed review of the company's history and development, its organizational structure – from a business perspective as well as in comparison to other companies in the natural gas industry, an examination of its regulatory history and structure and finally, by conducting a number of structured interviews with key members of the organization to obtain various internal perspectives on the past, present and projected future effects of deregulation on the company.

The employees interviewed hold positions at various levels of responsibility within Westcoast Energy in the Regulatory Services and Pipeline Operations areas. During

research projects, a number of details are often provided about those being interviewed to give the reader the ability to assess their credibility or capacity to answer the questions posed to them. These details may have included what role they played within the company or their job title, the length of time they have been with the company, their age, education and other relevant details. Due to the request for anonymity by some of the participants this information was not pursued in this case.

Based on a questionnaire distributed in advance, respondents were asked, via four individual teleconference interviews, to provide their opinions on a number of deregulation activities that had taken place over the past 17 years and what effect those activities have had, if any, on the company.

The structured interviews consisted of a question and answer dialogue in which seven questions were discussed (see Appendix 5). The questions covered: the pros and cons of deregulation of the natural gas industry; how those regulatory changes affected the sector to which they applied (gathering and processing); what effect the deregulation of one sector in the industry had on another (transmission); what particular effect the Western Accord and the Agreement on Natural Gas Markets and Prices (the two major deregulation policy initiatives considered) had on Westcoast; how subsequent regulatory changes have affected the company; and what the anticipated results of further deregulation of the industry would be, specifically the deregulation of the transmission sector of the industry. A summary of the results of these interviews can be found in Chapter 4.

The information obtained through the interviews on the seven topics identified has been consolidated and summarized to maintain anonymity and to eliminate some duplication of information. This information was placed under the question that was most appropriate for the discussion. For example, one respondent's response to question 2 was directly related to question 6, so was detailed where most relevant.

As mentioned previously, Duke Energy purchased Westcoast Energy (in September 2001) during this study. To date there have been few changes in the structure of Westcoast Energy in comparison to the state it was in when this project began. The way the company developed and its current structure are what differentiates the company from others in the industry.

This unique structure also is responsible for the type of regulatory model that evolved during the company's development. These two variables have not changed with the new ownership of the company and therefore it was felt that the basis for this case study analysis was still valid.

Chapter 2 provides a history of natural gas deregulation in British Columbia and an overview of the current regulatory structure and management of the industry. The present regulatory structure governing Duke Energy (Westcoast Energy) is then described, outlining its differences and the reason a unique regulatory structure has been created. Chapter 3 discusses the case study background and a history of Westcoast Energy and the evolution of the company from a small but ambitious company in the transmission sector of the business to a diversified, international company that is to date a

major player in the natural gas industry. Chapter 3 also provides some insight into effects that the regulation and deregulation policy changes have had on the company and the changes these policies prompted. A detailed analysis of deregulation of the natural gas industry is reviewed in Chapter 4. The chapter provides a broad analysis of the deregulation of the industry and then proceeds to evaluate in detail the changes to the gathering and processing sectors (as a result of the implementation of the Western Accord and the Agreement on Natural Gas Marketing and Prices), the effects of these changes on Westcoast Energy, and the possible changes to the transmission and distribution sectors should further deregulation occur.

The final chapter provides the summary and conclusions.

CHAPTER 2

NATURAL GAS INDUSTRY REGULATION AND MANAGEMENT IN BRITISH COLUMBIA

Introduction

To understand natural gas regulation it is important to understand how the industry in BC is structured, how it is managed, its development history and the reasons behind why regulation came about. Regulation is, as Hessing and Howlett (1997) point out, one of the more prominent policy implementation tools in the natural resource policy arena, and “has been by far the most favoured government technique for controlling or restricting the activities of individuals and companies involved in various forms of resource harvesting, extraction, processing, and sales” (p. 172). The natural gas industry has moved from a fully regulated environment to one in which regulation is becoming less prevalent. It is this history and regulatory pathway that is described below.

The Natural Gas Industry

The natural gas industry is comprised of four sectors: exploration, production, transportation and distribution. The **exploration** sector consists of companies conducting seismic surveys³ to locate the reserves of oil and natural gas. If seismic surveys indicate the presence of oil or natural gas then the appropriate permits are obtained from the provincial regulatory body and drilling begins to determine the quantity and quality of the resource. The three stages of the **production** process then begin, which involve completing the well, bringing the gas to the surface, and finally, purifying the gas (CERI, 1999). If the gas found is more or less pure, it can be processed at small field facilities

³ See Glossary for a definition of terms.

that remove moisture and other simple contaminants. From there it can be piped directly into a larger pipeline for transportation to market.

Most gas is not “pure” and requires processing after it has been extracted to remove contaminants (moisture, hydrogen sulphide, and carbon dioxide) and to extract other commercially valuable substances from the gas stream. For example, most natural gas reservoirs typically contain other hydrocarbons such as ethane, propane, butane and natural gas liquids. In Alberta this gathering and processing forms part of the production sector, however in BC, gathering and processing forms part of the transportation sector due to the unique way in which Westcoast Energy was developed.

Once processing is complete, the natural gas is then injected into **transportation** pipelines for transmission to the local, smaller **distribution** pipelines that take gas directly to residential, commercial and industrial consumers. Virtually all natural gas produced and consumed in North America is transported by pipeline.

Management of the Industry

Management of the natural gas industry in British Columbia involves three main groups: all the companies in the various sectors of the industry (see Exhibit 1); the provincial regulatory body (The British Columbia Oil and Gas Commission); and the federal regulatory body (The National Energy Board). The British Columbia Oil and Gas Commission, created by the Provincial government in 1998 administers all legislation pertaining to the crude oil, natural gas and pipeline activities within the province. The National Energy Board was created by an Act of Parliament in 1959 and has regulatory

Exhibit 1 - The Companies in the various sectors of the natural gas industry in BC

<u><i>Companies in the Exploration and Production Sector</i></u>	<u><i>Companies in the Transmission Sector</i></u>	<u><i>Companies in the Distribution Sector</i></u>
Anadarko Canada Corporation Aquila Canada Corporation Apache Canada Ltd. ARC Resources Ltd. BP Canada Energy Company Burlington Resources Canada Ltd. Canadian Forest Oil Ltd./Producers Marketing Ltd. Chesapeake Energy Marketing, Inc. Chevron Canada Resources Limited Devon Canada Corporation Dominion Energy Canada Ltd. EnCana Corporation ENCO Gas, Ltd. Enserco Energy Inc. Entegral Gas Marketing Inc. Husky Energy Marketing Inc. Imperial Oil Resources Limited Kaiser Energy Ltd. Macon Resources Ltd. Marathon Canada Limited Mobil Oil Canada/Mobil Natural Gas Company Ltd. Murphy Oil Company Ltd. NCE Petrofund Corp Paramount Resources Ltd. Pengrowth Corporation Penn West Petroleum Ltd. Petro-Canada Oil and Gas Petrorep Resources Ltd. Phillips Petroleum Company Pioneer Natural Resources Canada Inc. Purcell Energy Ltd. Samson Canada, Ltd. Shiningbank Energy Ltd. Storm Energy Inc. Suncor Energy Inc. Talisman Energy Inc. Unocal Canada Limited Vintage Petroleum Canada, Inc. Willis Energy Services Ltd.	Alliance Pipeline Ltd. BC Gas Inc. (Southern Crossing Pipeline) Westcoast Energy Inc. (Duke Energy)	BC Gas Utility Ltd./Centra Pacific Northern Gas Ltd.

powers over the authorization of exports of oil, gas and electricity; the authorization of the construction of interprovincial and international oil, gas and commodities pipelines and international power lines; the setting of just and reasonable tolls for pipelines under

federal jurisdiction; and the regulation of oil and gas activities on Canada's lands in the north. The act also required that the Board keep under review the outlook for Canadian supply of all major energy commodities including electricity, oil and natural gas and their by-products, and the demand for Canadian energy both domestically and abroad (NEB, 2002).

The management structure can be discussed in terms of two regulatory regimes. The first is the closed or highly regulated regime, the second is the open or deregulated regime. Presently two of the sectors, transmission and distribution, in the natural gas industry fall in the "highly regulated" category and two, exploration and production, in the "deregulated" category. How these sectors are regulated and who is responsible for this regulation is outlined in the section entitled "Current Regulation" but before identifying the current structure it is important to understand the history behind the regulation of the industry and the reason for the transition to partial deregulation.

History

The energy industry has been an important part of Canada's economy in terms of investment, trade, income generation, and employment for over a century. It currently employs more than 280,000 Canadians and accounts for 6.8 per cent of the GDP (gross domestic product) and 16 per cent of total investment in Canada (Energy Council of Canada, 2001). Canada is the fifth largest energy producer in the world (2/3 of this produced in Alberta) after the US, Russia, China and Saudi Arabia and the sixth largest energy consumer in the world (CERI, 1999).

It is the ongoing and increasing importance of this industry, coupled with its characteristics that prompted the need for regulation. In some industries, regulation was imposed to prevent abuses that had previously been endured (such as the application of market power in natural monopolies) and to ensure that all parties had equal access to information and services. For example, other regulation ensured that safety and health (in the food, drug, and aircraft

Exhibit 2 - Make up of Primary Energy Production in Canada	
Natural gas	36%
Oil	23%
Hydropower	20%
Coal	11%
Nuclear	4%
Other	6%
70% is consumed in Canada, 30% is exported	

CERI Training session 03/2002, Calgary, Alta

industries, for example) would be maintained. Such regulation attracted little criticism, since it clearly appeared in the public interest. (National Museum of American History, Smithsonian Institute, 2001).

Because utilities are a public service, government has played a substantial role in defining the terms of the business. This interaction between private decision-making and public policy makes for a complex economic environment. Arguably, the justification for the ongoing application of regulation is to safeguard the environment and to maintain programs such as low-income programs, energy-efficiency initiatives, and R & D on

alternative technologies. These programs are clearly desired by the public, but they might hold little interest among competitive companies that seek to minimize costs. Regulation was also supposed to provide stability in unstable markets by limiting competition while controlling the worst monopoly abuses (Kahn, 1991).

In Canada, the Canadian Constitution divides the power to set energy policy between the provincial and federal governments. The provincial governments own the natural resources, and they are responsible for most aspects of regulation and energy sector development within their geographical boundaries. The federal government is responsible for harmonizing energy policy at the national level, promoting regional economic development, frontier lands, offshore development, interprovincial facilities, plus international and interprovincial trade (Energy Council of Canada, 2001).

In 1985 the regulators' roles began to change in the energy industry, beginning with the natural gas sector. Economic, protectionist and regulatory questions were being asked. "Were prices at their appropriate level given supply, demand and competitive pressure? Were the domestic volume protection tests effective, relevant and fair? And could changes in utility regulation better serve some of the needs of the natural gas industry and consumers? Was it time for some form of deregulation?" (Haughey and Liddle, 1985).

Deregulation

Regulation of the natural gas industry began "partially due to a desire to protect consumers from unilateral field price increases proposed by Alberta and partially due to a desire to ensure that Canadian producers received "fair value" for gas sold in export

markets” (Doern, 1991, p. 7). Initially these regulations were successful however they became increasingly at odds with dynamic changes in the marketplace and with improving technology in the industry (Doern, 1991). As these changes took place it became apparent that some of these regulations should be changed or eliminated. The term deregulation was quickly adopted as these regulations were eliminated. It should be noted that deregulation in this instance should not be applied literally. Deregulation as it relates to the natural gas industry can be described as “the process of changing natural gas market regulations to allow a greater role for market forces to balance supply and demand and set prices”. It does not mean the complete absence of regulation.

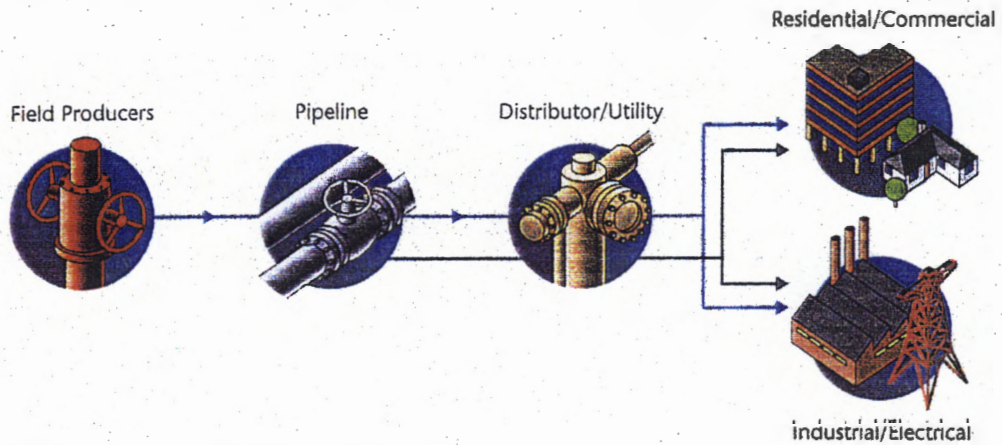
Deregulation has been applied in a limited way to a portion (gathering and processing sectors) of the natural gas industry. Prior to 1985, federal and provincial regulators were involved in establishing natural gas prices. In 1985, the federal and provincial governments signed landmark agreements that began to change the regulatory and pricing structure of the industry. The Western Accord effective June 1, 1985 (see Appendix 2), was the government’s first step toward deregulating the energy industry. It was designed to revitalize the Canadian energy industry by deregulating the crude oil pricing and marketing, and eliminating a number of federal oil and gas taxes or charges including the Petroleum and Gas Revenue Tax – a federal tax on all production revenue over \$10,000; the Petroleum Compensation Charge – revenues which were used for import compensation purposes; and the Canadian Ownership Special Charge – the proceeds of which were used to defray part of the cost of the acquisition of Petrofina by Petro-Canada (Energy, Mines and Resources Canada, 1985a).

Shortly after the Western Accord was signed, the “Agreement on Natural Gas Markets and Prices” (see Appendix 3) was signed November 1, 1985 with the intent of creating a more flexible and market-oriented pricing regime for the domestic pricing of natural gas. The result of this deregulation was the transfer of price setting from the governments to the markets (see Exhibit 3 for a before and after schematic) allowing the price of all natural gas in interprovincial trade to be determined by negotiation between buyers and sellers instead of being set by the regulators.

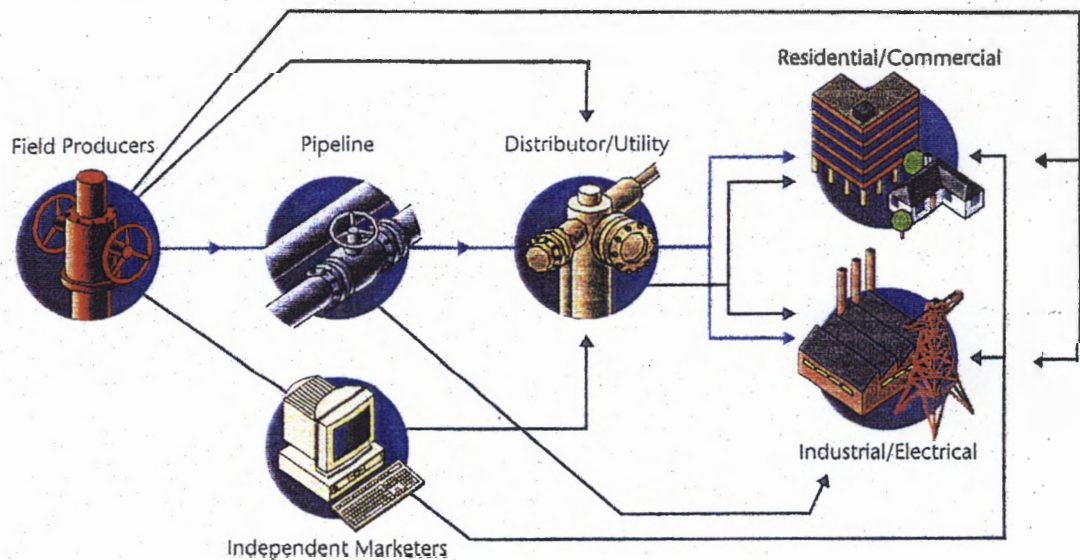
Deregulation of the natural gas gathering and processing sectors (in the general sense in the industry) was due in large part to the inflexibility as a result of the link of natural gas prices to crude oil prices, limiting economic activity. From 1975 to 1981 gas prices were set at about 85 per cent of crude prices; from 1981 to the end of 1984 the relationship was 65 per cent. The natural gas industry and gas consumers argued to governments that a pricing system that linked gas prices to oil prices was too inflexible, and that a pricing regime that is responsive to natural gas market conditions was necessary (Energy, Mines & Resources Canada, 1985). As Haughey and Liddle (1985) point out, the natural gas industry had reached a stage at which current markets were saturated, gas supply was at an all-time high, and consequently exploration was reduced. Due to the regulation in place, the industry could not adjust prices in accordance with market demand and competitive pressures. Nor could they adjust provincial and export volumes or the pipeline rate design. The Western Accord and the Agreement on Natural Gas Markets and Prices were intended to spur economic growth and alleviate some of the competitive pressures on the industry, putting an end to controversial energy taxes and providing a more market- oriented pricing regime.

Exhibit 3 - Natural Gas Marketing: Before and After Deregulation

Natural gas marketing – Pre-1985



Natural gas marketing – After deregulation



Legend

- Transportation
- Marketing

Source: Petroleum Communication Foundation

Producing companies now sell to many different kinds of buyers, including industrial customers, independent marketers, local distribution companies, marketing companies and other sales organizations.

As mentioned, these beginnings to natural gas industry deregulation only applied to production sector gathering and processing. The transmission (including gathering and processing in BC) and distribution sectors were still heavily regulated based on the argument that these sectors were a monopoly. It was not until much later (1998) that gathering and processing and transmission in BC were re-regulated with the development of Light Handed Regulation and Incentive-based Tolling. The following section outlines in detail the current regulatory and governance structure as it relates to each sector of the industry.

Current Regulatory Structure

The regulatory structure governing natural gas in Canada is a complex one guided by the constitutional division of powers between the federal and provincial governments.

British Columbia is the exception to this rule due to the prominence of Westcoast Energy.

To understand the significance of this departure it is important to understand first the governance of the neighboring provinces and as such the regulatory structure in BC as it applied to Westcoast Energy is discussed in the subsequent section.

Regulation of the **exploration** sector is controlled primarily by the provincial authorities.

In Alberta it is the Alberta Energy and Utilities Board (EUB) and in British Columbia it is the Oil and Gas Commission (OGC). Regulations are applied to the spacing of wells to protect correlative rights and ensure orderly development of the resource base, and to pooling (the combination of rights of owner A and owner B) when lease boundaries don't match the drill spacing unit. Well drilling also falls under exploration regulation and the well license application has to include the type of well, the intended depth and formation,

the intended surface location, and the direction of the well (CERI, 1999, section 8, p 8-9). The marketing of the gas, that was once heavily regulated, is now deregulated and the market sets the price boundaries.

Production regulations, which are again a primarily provincial jurisdiction (under the British Columbia Utilities Commission), govern royalties⁴ and removal permits as well as the less well-known areas of production including production testing, commingling, rateable take, gas injection, gathering lines, processing plants, gas flaring, and well abandonment (CERI, 1999, section 9, p. 18). Again, regulations on pricing have been lifted and are now set by the market

The **transportation (pipelines)** and **distribution** of natural gas continue to be regulated from both the pricing and production perspectives. In these areas, regulators oversee the building and expanding of the pipeline system, they determine the type of services the pipeline can offer, set the tolls or rates for those services, issue export licenses, and oversee worker health, public safety and environmental matters. Federal authorities in Canada (and in the US) regulate inter-provincial and international pipelines and provincial authorities (except in the case of the territories) regulate intra provincial activity. The transportation and distribution sectors of the industry are considered “natural monopolies” because the cost, demand and behavioural conditions are such that the most efficient way to provide the service is from one company (CERI, 1999). The following Canadian Energy Research Institute excerpt provides the reason for natural gas pipelines being designated as natural monopolies.

⁴ See Glossary for a definition of terms.

“Specifically, natural gas pipelines are considered a natural monopoly because: they have technical economies of scale; they are not subject to significant competition from other forms of transportation; the high capital cost of building a pipeline creates a barrier to competition; and duplication of pipelines would be wasteful in an environmental and economic sense” (CERI, 1999, Section 10, p. 30).

Westcoast Energy and Regulation in BC

In contrast to the other provinces in Canada, particularly Alberta (Canada’s largest producer of natural gas), British Columbia’s natural gas industry differs in a number of ways, creating a unique regulatory model (See Exhibit 4).

Normally the natural gas industry is broken down into the four sectors (exploration, production, transportation and distribution) mentioned earlier in this chapter, and regulated accordingly. Companies usually fall into one sector and do not often operate across sectors. For example, those that explore for natural gas do not usually process it. Those that process it do not usually transport it, etc.

This sectoral division gets complicated when talking about regulation and deregulation. This complication arises from the fact that initial deregulation was applied to only a portion of the industry (gathering and processing) and this portion of the industry falls into different sectors in different provinces. As outlined in Exhibit 4, gathering and processing is most often associated with the production sector in Alberta. In BC, because of the way Westcoast Energy was developed, gathering and processing forms part of the transportation sector.

Normally there is a clear distinction between the companies operating in the gathering and processing sector of the industry and the transportation or pipeline sector but that is not the case in BC. Not only is Westcoast the dominant

Exhibit 4 - Industry Development Comparison

Status	Sector	ALBERT A	Regulate d by	BRITISH COLUMBI A	Regulate d by
		<i>Number of companies in the sector</i>		<i>Number of companies in the sector</i>	
Deregulated	EXPLORATION	Many	Province	Many	Province
	PRODUCTION	Many	Province	Many	Province
	Gathering and Processing	Many, most often the same ones as in the production sector.	Province		
Regulated	Gathering and Processing			1 major company – Westcoast Energy	Federal – NEB
	TRANSPORTATIO N (Pipelines)	Many, the majority lie within the province	Primarily the Province	1 large company with the majority of the market share – Westcoast Energy . All pipes connected to inter- provincial or international pipes	Federal - NEB
	DISTRIBUTION	Many	Province	1 – BCGas (Terasen)	Province

company in these two areas of the industry but the regulators have tied these sectors together in BC due to the seamless vertical integration of the company. As a result of the integration of Westcoast Energy and its definition in law as “a single undertaking”, the gathering lines and processing plants are considered to be an “integral part of the pipelines to which they are connected on each side”. Because those pipelines cross inter-provincial and international boundaries the entire system (undertaking) falls under federal regulation (Federal Court of Canada, 1995).

In Alberta, as pointed out, the majority of the industry falls under provincial regulation with only those transmission lines that cross provincial or international boundaries being governed by the federal NEB. BC is the opposite in that the majority of the industry falls under federal regulation. This anomaly is due to the difference in the way the BC industry has developed. Westcoast’s processing plants are larger than any in Alberta and the other provinces; the industry is still very much vertically integrated with one company (Westcoast Energy) controlling the majority of the gathering, processing, and transmission sectors of the industry; and all the major pipelines in the province are connected. Because of this integration and the fact that a number of the transmission pipelines cross provincial or international boundaries, the jurisdiction over these lines falls within the federal purview of the National Energy Board. It is not the interprovincial or international nature of the pipelines that differentiates the BC system from Alberta and the other provinces (there are also lines in Alberta, Saskatchewan and Ontario that cross those borders) but the fact that Westcoast owns and operates

the gathering, processing and transportation facilities as a single enterprise and all the BC lines are connected to those that cross the borders. BC exports more than half the natural gas it produces, and once a pipeline crosses interprovincial or international boundaries that entire pipeline, regardless of how much of it lies within provincial boundaries is regulated by the NEB. In Alberta, for example, there are a number of transmission lines that begin and end within provincial boundaries and are therefore provincially regulated.

CHAPTER 3

CASE STUDY BACKGROUND

The History of Westcoast Energy

Although natural gas development in British Columbia began in the early 1900's there was no way to get the large natural gas reserves to the most populated area of the province—to where the market was. It was this transmission of natural gas from north to south that was promoted and developed by Westcoast Energy founder Frank McMahon.

The company started out as Westcoast Transmission Company Limited (WTCL) and constructed the first “big-inch” (30 inches in diameter) natural gas pipeline in Canada. Westcoast Energy now has a footprint stretching from Port Hardy, British Columbia on the west coast to Goldboro, Nova Scotia on the east coast and from Fort Liard in the north to the Bay of Capeche, Mexico in the south (Westcoast Energy, 2002). Included in this footprint are business interests in natural gas gathering, processing, transmission, storage and distribution, and power generation. Westcoast has also diversified into the international energy business, financial and information technology, and energy services. When Westcoast Energy Inc. was purchased by the US energy giant Duke Energy in September 2001, a new chapter began. The following is a brief review of the company's development. Emphasis should be added to the word “brief” here as entire books have been written on the history and development of Westcoast. Only the highlights that relate to this particular project are provided.

The Beginning

As mentioned in chapter 2, the natural gas industry is divided into four sectors, exploration, production, transportation (also referred to as the transmission sector or the pipeline sector), and distribution. Westcoast Transmission Company Limited (as it was then called) began, as the name implies, in the transmission sector as a company that wanted to develop a natural gas pipeline from northern to southern BC. Unfortunately there was little proof or agreement in the industry that there were sufficient, proven natural gas reserves in the Peace River country to support a pipeline of this magnitude. McMahon's only real support was from geologists in both England and the United States that felt "the northern part of British Columbia was one of the largest favourably situated but unexplored geological areas of the world" (Westcoast Transmission Company Limited, 1982, p. 1). Because these gas reserves were as yet unproven, permission to proceed with the pipeline only came after the company could secure permission from the Alberta Government to transport surplus Alberta gas beyond provincial boundaries and justify an expansion of the target market to include the western United States. The constitutional division of powers between the federal and provincial governments dictated that interprovincial and international transmission of gas fell within federal jurisdiction. This prompted the Canadian Parliament to enact the Pipelines Act of Canada. Shortly thereafter, Westcoast Transmission (WTCL) was incorporated on April 29, 1949 after being granted federal incorporation by a special act of Parliament (Westcoast Transmission Company Limited, 1982). This was not the end of the federal government's involvement in Westcoast's business.

After more than 20 years of exploration in the oil and gas fields of Alberta and BC and a plethora of companies developed in partnership with whoever would finance these forays, Westcoast's pipeline construction finally began in the Peace River country on "what was then the most northerly natural gas pipeline in the world and the first to export natural gas from Alberta" (Gray, 1982 p. 128). Because the pipeline ran from Pouce Coupe to Dawson Creek it could be argued that this was a BC pipeline. However because the gas field crossed into Alberta this pipeline was deemed to be an inter-provincial line—the first in Canada (Gray, 1982). It was the development of this field and pipeline that paved the way for McMahon's next big project—the north/south pipeline.

After six years (in 1955) Westcoast was finally granted permission to build a pipeline to Vancouver. That same year, on November 25, 1955, after many battles with the regulatory agencies in the U.S., ("a record 357 days of public hearings before regulatory bodies, spread out over four years: 217 days before the Federal Power Commission in Washington, 136 days before the Alberta Oil and Gas Conservation Board in Calgary, and four days before the Board of Transport Commissioners in Ottawa") (Gray, p. 181), the appropriate permits were obtained and WTCL received permission to export natural gas to the U.S. With "the long regulatory struggle over, the physical struggle to build the pipeline was about to begin" (Westcoast Transmission Company Limited, 1982, p. 5).

The pipeline extended from Taylor, B.C. in the north, through the Peace River country, the Cariboo and the Coquihalla Pass to Hope and the international boundary of Huntingdon to connect with the Pacific Northwest Pipeline. This route traversed 650

miles of provincial and federal lands and the pipeline had an initial operating capacity of between 350 (Westcoast Transmission Company Limited, 1982) and 400 million cubic feet per day (Gray, 1982). Of this initial capacity, 50 million would be for BC consumers and the balance would be exported to the United States (Gray, 1982). Half a century later, Westcoast continues to export a substantial portion of BC's natural gas to the Pacific Northwest.

In the fall of 1957 Westcoast expanded its business into the processing side of the industry. The completion of a gas scrubbing, refinery and sulphur recovery plant at Taylor was required to process the gas that was to be piped south. The company's expansion was aided by the completion of the railway and the subsequent boom that it brought to the Interior of BC. The railway provided Westcoast with an additional means of marketing its by-products (sulphur and propane) from the Taylor plant (Westcoast Transmission Company Limited, 1982).

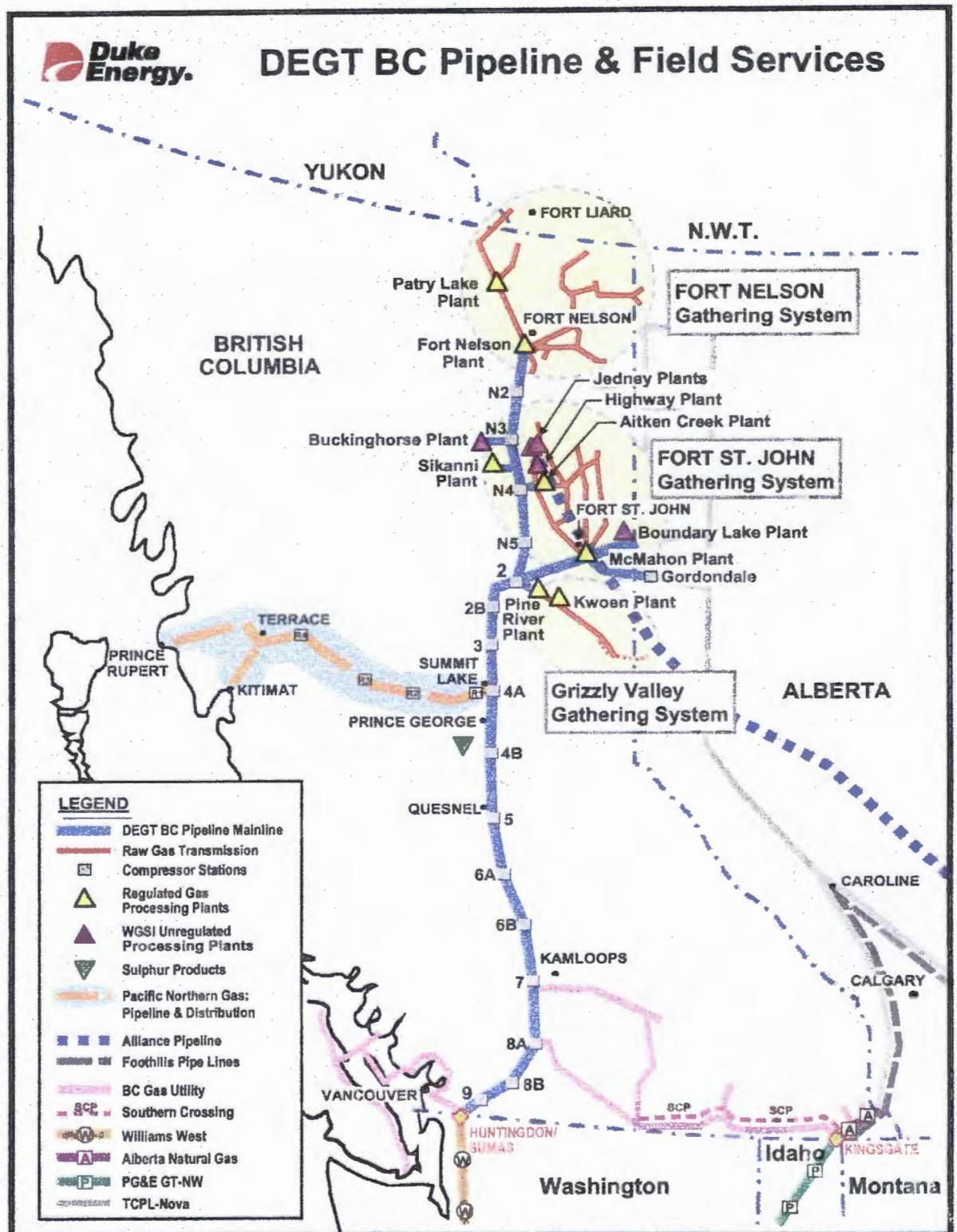
Development and Expansion

The Taylor plant was the introduction to a decade of expansion for Westcoast.

Expansion that came at a cost but was required to develop the gathering system required to feed the north to south pipeline. The decade began with a 250-mile pipeline expansion that began in Fort Nelson and connected into the Westcoast mainline (see Exhibit 5).

This project was developed by Gas Trunk Line of British Columbia Ltd, a company formed by Westcoast in association with Pacific Petroleum, El Paso Natural Gas and other producers. In 1964 a second processing plant (the biggest of its kind in North America at the time) was built at Fort Nelson and a 402 kilometre mainline expansion

Exhibit 5 – Westcoast (Duke) Energy Pipeline System



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took place to provide pipeline access to newly found resources. In 1968 the founder, under a Westcoast subsidiary called Pacific Northern Gas Ltd. (a phenomenon that was a development norm for F. McMahon), built a pipeline from Summit Lake to Prince Rupert. This was to be Frank McMahon's last pipeline prior to retirement. That same year, in partnership with Bechtel Corporation, planning began on an oil and gas pipeline that would run from Alaska all the way down to the lower 48 states. This pipeline was the forerunner to what is well known today as the Foothills Pipeline (Westcoast Transmission Company Limited, 1982). This continued development and expansion of Westcoast increased the assets of the company but did not provide the increased revenues required to continue to operate and continue to expand. This slow return on investment was due in part to the long term, low priced export contracts that were in place. It took a two-year struggle (1966 – 1968) before Westcoast received permission from the US Federal Power Commission and the NEB to win the approval for larger export sales at higher prices—approval that was projected to finally put the pipeline on solid financial footing (Gray, 1982).

The Stabilization and Diversification of Westcoast Energy

The 1970's were a decade of diversification, regulatory intervention and development for Westcoast. This diversification included a merger with two affiliates (Western Pacific Products and Crude Oil Pipelines, and Westcoast Production) to create Westcoast Petroleum Ltd, an integrated exploration, production, and pipeline company with extensive oil and gas holdings in western Canada, Yukon Territory and the Northwest Territories (NWT).

The spring of 1973 saw a significant change in the company's role in the province's natural gas industry. The following is a summary in a historical brochure by Westcoast Transmission of the events that took place that would rescue the company from its worst financial situation yet.

The provincial government established the British Columbia Energy Commission to investigate the natural gas industry. Westcoast's influence throughout the industry was the main point of interest during the hearings. In response to the commission's recommendations, the British Columbia Petroleum Corporation was established to control the purchase and resale of natural gas. In effect it created a royalty-gathering Crown Agency inserted between the gas producer and the pipeline. Henceforth, all producers in the province would sell to the Petroleum Corporation, which in turn would sell the gas to WTCL. The difference between the buying and selling price would be collected as a type of royalty by the government. In November 1973, Westcoast assigned to the Petroleum Corporation all its BC gas purchase contracts. Under this agreement in perpetuity, WC remained as a company conducting interprovincial and international business under the jurisdiction of the federal government and the National Energy Board. Since WTCL no longer would have control over pricing, its future revenue would be based on a cost-of-service contract, which provided an assured return on investment. In effect, WTCL relinquished all opportunities for marketing profits as a trade-off for the security of regulated down-side protection as payment for the use of its utility system (Westcoast Transmission Company Limited, p. 12).

As a result of this change in the industry "Westcoast's gas purchase prices, sales prices, and profits had all ceased to be determined by market competition and were set by government regulation" (Gray, p. 282). According to Gray, this transition from the competitive market to regulated earnings resulted in greater profits for Westcoast than ever before. This system was advantageous to the gas producers and to WTCL but the primary beneficiary was the provincial government when it received royalty revenues of \$13 million. This provincial revenue increased even further to \$527 million in 1980 (Westcoast Transmission Company Limited, 1982).

The early 70's also marked the first time in the company's history that they could not meet customer demand (Westcoast Transmission Company Limited, 1982). This prompted the development of yet another partnership with what is now known as NOVA to form Foothills Pipe Lines Ltd to transport gas south from the NWT. Again WTCL ran into regulatory intervention and the plans to pipe natural gas from the northern part of the country to the growing south went through a number of changes, due in part to the Berger Inquiry that recommended a 10-year postponement of the Mackenzie Valley pipeline and a ban for all time on a pipeline along the north slope of the Yukon Territory. Eventually (after 5 years of bureaucracy and project redesign) approval was obtained to develop a large diameter straight-through pipeline to the US, the Canadian portion of the Alaska Highway project.

The Foothills pipeline project was projected (by the company president at the time, Ed Phillips) to "triple the size of Westcoast within four to five years in terms of assets administered, equity investment, and volume of energy handled" (Newman, 2002).

In 1978 the federal government also became an indirect partner of WTCL with the development of Petrc-Canada and its purchase of Phillips and Pacific Petroleum companies which held one third of the Westcoast Transmission shares. Subsequently in 1980, British Columbia Resources Investment Corporation (BRIC) also became a major shareholder when it received the Westcoast shares held by the provincial government (Westcoast Transmission Company Limited, 1982).

Strategic Growth and the beginning of deregulation

The eighties brought about a strategic growth plan, deregulation, plummeting oil and gas prices, and a change in direction for the company. This growth plan, based around the development of the subsidiary Westcoast Petroleum, was successful in quadrupling production by 1985. This wave of success was interrupted the following year by a recession and commodity prices went through the floor. Pipeline growth aspirations were also stymied by economics and politics, although there were high hopes for Mulroney's proposed natural gas deregulation (Newman, 2002).

Deregulation was expected to make business easier to conduct and to stabilize the gas exports that underpinned WTCL's revenue. However, according to Newman (2002, p. 129) "the impact of deregulation on future income was uncertain. It would ensure the predictability that pipelines depend upon, but it would also create competition in areas such as gas marketing. Deregulation might be good business but it came without a guarantee of an upside for income and dividends". It was the strategic plan that carried Westcoast through the drastic drop in oil and gas prices in 1986 and 1987 when those less well managed couldn't make it and the deregulatory process of natural gas production, energy export and pipeline transportation moved the industry toward continentalism and globalism (Newman, 2002). Ironically only a decade earlier the company relied on regulated prices to increase revenues and export contracts. It now is looking toward deregulation to make business easier and to stabilize exports.

The decade ended with a change in leadership (M. Phelps was now at the helm), a change in name (from Westcoast Transmission to Westcoast Energy), and a new plan for growth

and expansion, which included a flurry of acquisitions including Texac Pacific Oil, Roxy Petroleum, AGIP and Inter-City Gas (ICG) (Newman, 2002).

Expansion and the Impact of Deregulation

After acquiring ICG in the late 1980's, Westcoast became primarily a natural gas pipeline and distribution company. In 1992, Petro-Canada sold all its shares (29%) of Westcoast to the general public, leaving Westcoast the freedom to chart its own course. This course began with the sale of Westcoast Petroleum and the acquisition of Union Gas, a company that had been influential in "the development of energy policy and regulation that extended to the deregulation era" (Newman, p. 156). With the acquisition of Union Gas and deregulation came an end to the historical west to east flow of natural gas and a shift in the company's strategic direction. Natural gas now flowed in all directions and "rising competitive forces were sweeping away Westcoast's monopoly privileges and bringing them face to face with customers and competitors" (Newman, p. 166). At the same time there was a wave of opportunity as demand for natural gas increased. Deregulation opened up a network greater than just the east/west connection. This opening of the market allowed all the companies to sell and distribute gas throughout North America. Westcoast was ready to build a new processing plant and expand the pipeline but producers and distributors had a different idea and BCGas challenged Westcoast's expansion in the courts. Although Westcoast won the appeal (1997/98), the interim period was a time of reflection and prompted the company to change the way it did business. This change resulted in a restructuring of the company to drastically reduce costs and a retooling of how the company did business with producers and shippers (Newman, 2002). These court cases were based on a constitutional dispute over who had

regulatory jurisdiction, the province of BC or the federal government, over which section of the industry, and under what circumstances. They were also pivotal in reinforcing the difference between how Westcoast operated its business versus how other companies in the industry, both within BC and in other provinces, operated. Exhibit 6 provides a summary of these decisions.

This new way of doing business for Westcoast was guided by two instruments. One, a series of toll settlements (beginning in 1996) aimed at providing a period of orderly transition for the regulation of Westcoast's pipeline tolls from the existing full cost of service method to a more light-handed method of regulation, and two, an arrangement between the shippers and Westcoast Energy (in 1998) that would implement a method of light-handed regulation on the gathering and processing services provided by Westcoast. This agreement was called the Framework for Light-Handed Regulation. Under these agreements the company started to negotiate prices with customers rather than having them set by the NEB.

A new owner

Westcoast Energy Inc. was purchased by Duke Energy in September 2001. As Peter Newman (2002, p. 2) so aptly described the situation at the time—"the company found itself at the end of its century, a \$15 billion corporation competing in a \$30 billion world. Its choice was to stagnate or to reward the faith of generations of investors by finding a home big enough to absorb its North American footprint". This new ownership has provided the size and financial strength to pursue its growth potential.

Exhibit 6 – Jurisdictional Court Cases

Westcoast Energy Inc. vs National Energy Board and Attorney General of Canada, February 9, 1996 – Federal Court of Appeal Case.

Background

Westcoast Energy, whose primary business is the transportation of natural gas, applied to the NEB for certain exemption orders and certificates pursuant to the NEB Act in respect of proposed expansions of its gathering pipeline and processing plant facilities in the Fort St. John and Grizzly Valley resource areas (Federal Court of Canada). The Board initially adjourned the Grizzly Valley application. On the Fort St. John application they deemed that the proposed facilities were not federal works or undertakings under s. 92(10)(a) of the *Constitution Act, 1867* and dismissed the application for lack of jurisdiction. The basis for this decision they argued was that “gas processing and gas transmission were fundamentally different activities or services” (Federal Court of Appeal).

This Federal Court of Appeal case is the appeal by Westcoast of the Fort St. John decision. They also revived their Grizzly Valley application and applied to have the Board refer jurisdictional questions to this court as well.

The Decision

The Court of Appeal dealt with both facilities together and ruled on two issues:

- 1) “whether the proposed facilities would constitute undertakings connecting the province with any other province or extending beyond the limits of the province. That question gave rise to the further inquiry as to whether Westcoast was conducting one or more than one undertaking. If there was a single undertaking, there could be no question that such undertaking met the requirements of 92(10)(a) of the *Constitution Act, 1867* for it extended at both its upstream and downstream ends beyond the limits of BC. If, on the other hand, it was determined that Westcoast was conducting more than one undertaking, the questions became to know if the undertaking the proposed facilities will form part of fell within federal jurisdiction.
- 2) which would arise only if the first was determined in favour of federal jurisdiction, turned on the question whether the proposed processing plants could properly be considered to be included within the expression “real and personal property and works connected therewith” in the definition of pipeline in section 2 of the *National Energy Board Act*” (Federal Court of Appeal, p. 1).

The Court ruled that in the case of the first question, that gathering and processing and transportation operations should be deemed as a single undertaking, and that with respect to question 2, this undertaking could and did fall within the definition of “pipeline”. Therefore, both these matters fell under federal jurisdiction. The reasons for the decision on the first questions are based on the following facts:

“(1) It was a provider of services only; (2) Processing was required to facilitate the transportation service provided by it; (3) Processing was offered as a service

exclusively to shippers on Westcoast's mainline transmission facilities; (4) the fuel gas which went into Westcoast's mainline transmission facilities was, by far, the major component of the raw gas gathered and processed by Westcoast; (5) Westcoast's facilities were not only physically interconnected and interdependent, they were, in some cases, interchangeable; (6) fuel gas could be contractually delivered across provincial borders from all Westcoast processing plants; (7) the same personnel worked on both the gathering and mainline transmission pipelines and, they, together with the personnel of the processing plants, were subject to a unified operational control and direction; (8) Westcoast was the owner of all the facilities in question. Ownership is not determinative of constitutional jurisdiction but it certainly is not irrelevant" (Federal Court of Canada, p. 2).

The reason for the decision on the second question was based on the definition of "pipeline" in section 2 of the *National Energy Board Act* which included the Westcoast processing plants in its definition. Given that Westcoast was a "single undertaking, the processing plants had to be considered an integral part of the pipelines to which they were connected on each side" and "although processing plants were not mentioned expressly in the definition, the general words of the definition were broad enough to cover processing plants". Therefore the Board's jurisdiction extended to the processing plants in question here (Federal Court of Canada, p3).

BC Gas Utility Ltd. V. Westcoast Energy Inc., the National Energy Board, the Attorney General of Canada and the Attorney General of British Columbia. March 19, 1997 – Supreme Court of Canada case .

BCGas appealed the Federal Court case decision as outlined above and was supported by the Attorney General of British Columbia, the Attorneys General of Alberta, Nova Scotia and Saskatchewan.

The Supreme Court denied this appeal in support of the previously made arguments.

BCGas argued that, "even if the projects in issue are within federal jurisdiction, the NEB does not give the Board jurisdiction over gas processing plants because they do not fall within the following definition of "pipeline", found in s. 2:

"pipeline" means a line that is used or to be used for the transmission of oil or gas, alone or with any other commodity, and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123, and includes all branches, extensions, tanks, reservoirs, storage facilities, pumps, racks, compressors, loading facilities, interstations systems of communication by telephone, telegraph or radio and real and personal property and works connected therewith . . .

BCGas continued to argue that, "because the processing plants are not, strictly speaking, for transmission, they fall outside the scope of the provision".

The Supreme Court did not agree with these arguments and upheld the Federal Court of Canada decisions.

There would be the inevitable personnel changes as in any merger but to date, and in the foreseeable future, there is little change anticipated (according to those interviewed) in the structure of the Westcoast portion of Duke Energy.

Summary

This chapter has provided a review of the development history of Westcoast Energy and an introduction into the regulatory problems encountered during its 50 years of development. This review was intended to provide the necessary background and setting for the Case Study. The following map (Exhibit 6) has been provided as a pictorial account of Westcoast Energy's Pipeline Systems today.

CHAPTER 4

THE EFFECT OF DEREGULATION ON WESTCOAST ENERGY

Introduction

In the last decade and a half the natural gas industry has undergone a number of policy changes with respect to how the industry is regulated. The changes to these regulations have been applied to some portions of the industry (gathering and processing) and not to others (transmission and distribution). This case study was designed to determine specifically, the effect that these regulatory changes had on Westcoast (Duke) Energy, particularly as they relate to further deregulation and the transmission sector of the industry. The results of the study provide information on the pros and cons of deregulation from one company's perspective, providing an applied example of the effects of deregulation.

Deregulation from a Westcoast perspective

The industry as a whole

From an industry perspective, the overall outcome of deregulation is a positive one. Deregulation of the Canadian gas industry shifted the pricing of natural gas from a federal government responsibility to an industry responsibility and opened up the market to a more competitive access. Prior to deregulation the pipelines purchased the gas from the producers or gas marketers and sold it to the local distribution companies (LDC) who in turn sold it to the residential, industrial and commercial customers. Deregulation opened up this market so that anyone could buy gas from the producers. Independent

marketers, the distribution companies and even the customers could buy directly from the producer at independently negotiated prices. This provided real competition in the industry.

As a part of the deregulation policy changes, the National Energy Board relaxed its export controls so that a 25-year supply cushion was no longer required. This produced a significant over supply of gas that flooded the market all at once. This oversupply, coupled with the opening of the market drove prices down to almost half of what they were by 1987 and in the first ten years after deregulation, the demand for Canadian natural gas increased by over 90%.

On the whole, demand and supply went up, exploration and production went up, security of supply went up, competition increased, and the price decreased.

Although the general consensus is that deregulation is positive, this change to open market access led to some problems in the market, which in turn created distrust in the industry. Once the selling of natural gas became more market oriented and there were many buyers and sellers competition increased, particularly at what are called "hubs" where many pipelines congregate at one point for example, (Sumas). This can result in a very liquid market where gas can be traded as a commodity both on physical deliveries and on the futures markets and can lead to a suspicion of unfair trading practices taking place.

Westcoast Energy Gains from Deregulation

Financial deregulation of the gathering and processing sector has allowed Westcoast to compete more effectively with pricing. Westcoast is now able to adjust their service rates

so that they are more competitive with other mid stream companies. Prior to deregulation the NEB mandated fixed rates on Westcoast. With the company being regulated by the NEB under fixed rates and other companies in the sector being regulated provincially with no fixed rates for service, it gave the unregulated companies a differential advantage.

With the elimination of government price setting on the commodity, the opening up of the access to transmission services to all market participants led to the regulation of the pipeline services. Not only did this allow producers access to the market, it allowed them to access it at the price the customer was willing to pay. There were now many buyers and sellers, not just the pipelines. This led the pipelines to get out of the merchant function, providing them a chance to focus on the core business – transporting gas.

Deregulation of the gathering and processing facilities allowed Westcoast to get away from non-discriminatory tolls—the one-size-fits-all situation. Under non-discriminatory tolls the company had to provide a standard service contract. Regardless of volume there was a fixed toll customers had to pay for service. Because of the company's vertical integration, this toll was applicable, regardless of whether you were moving gas through the Westcoast gathering system to their processing plants or through their mainline transmission system – one size fits all. A large portion of the tolling was based on what is called “postage stamp tolling”. This meant that all customers shipping gas through a processing plant paid exactly the same price for moving their product through the plant. The difference in rates depended only on the variation in the composition of the gas and

how much of the plant was required to get it cleaned up so that it was homogenous when it came out of the processing plants.

With deregulation came the relaxing of export controls and the market opened up, leading to the requirement for increased capacity in the pipelines to serve the new markets. This expansion was beneficial to Westcoast because the company now had more gas flowing through its pipelines.

The Downside of Deregulation for Westcoast Energy

The majority of those interviewed felt that overall there were few drawbacks to deregulation, particularly in the short term. However, it was pointed out that in the longer term, for a variety of reasons (including the California debacle and the Enron fiasco), deregulation has resulted in substantial volatility in gas prices. For the first 15 years of deregulation the price of gas fell as the market worked toward its equilibrium. The market worked as the deregulation policy intended. More recently (since late 2000) there has been substantial volatility in the price of gas which has led to some political concern and consumer outrage.

One of the goals of deregulation was to alleviate the regulatory burden on companies and lessen government involvement. One respondent questioned whether deregulation really led to a decrease in the regulatory burden or whether regulators just shifted their attention from economic regulation to other areas of regulatory intervention such as environmental regulation and public consultation requirements.

Changes to the Gathering and Processing Sectors

Overall the regulatory changes to the gathering and processing sector of the company were viewed positively. Those interviewed suggested that the company gained flexibility with respect to pricing to maintain market share and that the company was able to operate more competitively. This leveled the playing field between the unregulated provincial sector (which all other plants would operate under) and the primary player – Westcoast, which was heavily regulated under the NEB.

To understand the magnitude of the changes this deregulation initiated, and the chain of events that took place, it is important to provide some background on the development of this sector of the company. The significance of the unique structure of Westcoast and its position in BC's natural gas business is highlighted when compared to the same sector of the business (gathering and processing) in Alberta.

The gathering and processing sector consists of a number of gathering systems and the plants that those systems feed. In Alberta there are many plants with the gathering systems behind each of those plants, owned by many companies and regulated by the province. Competition was inherent in this system due to this multiplicity. In BC there are only three major plants all owned by Westcoast (Duke) Energy (with a couple of small plants playing a minor role), located in Fort St. John, Fort Nelson and near Chetwynd in the Pine River Pass area. These plants were operated on a cost of service basis under a "one size fits all" philosophy. All producers received the same service agreement based on standard terms and conditions and standard published tolls for the service received. This is how Westcoast operated for almost 30 years.

This worked in the short term but producers gradually became discontented with the level of the Westcoast tolls. As facilities started to expand to accommodate the resulting increase in demand and customers were charged “rolled in tolls” they became increasingly dissatisfied with the one size fits all philosophy and threatened to drop Westcoast as the processor of choice and build their own plants, arguing that they could build their own processing facilities for as cheap or cheaper than what Westcoast was charging. This discontent led to Westcoast proposing a regulatory regime that was more “competition friendly”, a regime that moved away from a cost of service approach to a more market oriented approach. This regulatory regime called The Framework for Light-Handed Regulation was agreed to by the key Westcoast stakeholder groups and was approved by the NEB. The premise of The Framework for Light-Handed Regulation is explained in detail in the section entitled “Subsequent regulatory changes” later in this chapter.

The effect of regulatory changes to a portion of the industry

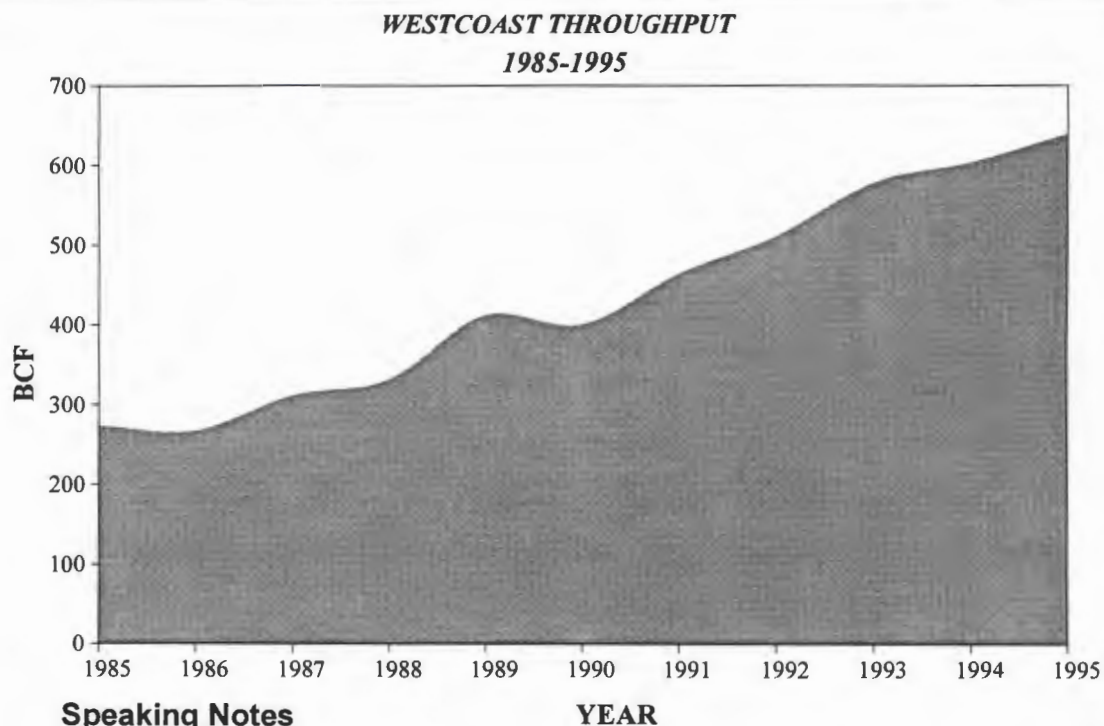
Because of the vertical integration of the company, I was interested in determining whether the policy change on one portion of the business (gathering and processing) had any effect on its primary business – transmission. The responses to this question when asked were polarized. The opinions on what, if any change, deregulation of the gathering and processing sector had on the transmission side of the business ranged from “none at all” to “indirectly” to “yes it had an effect”. This polarization may be attributable to the increasing involvement of those interviewed in a broader cross section of the company.

One respondent suggested that the deregulation on the gathering and processing side did not have any effect on the transmission side of the business. Two respondents suggested that the deregulation that had taken place so far had an indirect effect on the transmission side stating that “it has made our upstream business more competitive and more desirable for our customers”, paving the way for settlement negotiations on the transmission side.

One respondent thought that the extensive pipeline expansions to accommodate the increased volumes in supply, and the policy changes to the way the transmission of gas was handled were a direct result of deregulation. From an expansion perspective, the lifting of the 25-year supply cap and the opening up of the export market resulted in an excess supply of gas that required large pipeline volumes resulting in large pipeline expansions. Exhibit 7 is a copy of a graph from Westcoast that shows the dramatic increase in throughput (from about 260 Bcf in 1985 to 667 Bcf in 1996 – an increase of over 150%) on Westcoast’s system in the 10 years following deregulation (Westcoast Energy Inc., 1997).

From a policy perspective, deregulation resulted in regulators suggesting, and imposing, a policy in which the pipelines would no longer purchase and sell gas on their own account. They would have to become open-access systems, or service providers, where others would transport their gas through the pipelines not the pipeline company themselves. The pipeline companies would become in effect the “trucking company”, moving the product on behalf of the owners (producers, marketers or others) of that product. To affect this transition the pipeline companies first, had to resolve the issue of all the supply contracts they were presently managing. Gas purchase contracts had to be renegotiated and gas sales contracts to those receiving the gas at the other end of the pipeline also had

Impact of Deregulation on Westcoast Pipeline Division



Throughput on Westcoast's system has increased dramatically since deregulation -- from about 260 Bcf in 1985 to 640 Bcf in 1995 which represents almost a 1509% increase.

We forecast that demand will increase further during the foreseeable future.

This increased throughput is reflected in the growth of Westcoast's pipeline assets and rate base which have increased from \$700 million in 1986 to \$1.8 billion in 1995 -- a 150% increase.

Source: Source: Westcoast Energy Inc. (1997). Presentation by B. Jardine to The Australian Gas Association Overseas Scholars, September 19, 1997. Westcoast Energy Inc., Pipeline Division.

to be renegotiated. Today companies like Westcoast and Nova simply enter into transportation service arrangements with their customers.

With the financial deregulation of the gathering and processing sector and the change to the transmission side of the industry—from a buyer and seller of gas to strictly a transporter of gas—came a new and difficult regulatory relationship with the NEB. The NEB decided that it had to fix the cost of service and tolls for Westcoast for service arrangements. They wanted to fix the cost on a broad range of business activities, including the “assumed capital structure, the rate of return on common equity and the cost of service which was generally based upon what Westcoast says it costs to move a mcf (million cubic feet) of gas through its system. Over time this became an unmanageable burden for the company due to the way the NEB views Westcoast (as one entity including the gathering and processing facilities and the transmission pipelines). When none of the other players in the Canadian market were integrated in this way or wholly regulated under this model, it made it very difficult to compete in the market.”

This difficult regulatory relationship prompted Westcoast to negotiate a number of Incentive Settlements with its customers. These incentive settlements were approved by the NEB but for the most part left the setting of the business guidelines to those in the business. The only time the NEB would intervene was when complaints arose that Westcoast and its customers were not able to resolve. This type of negotiated business arrangement brought Westcoast and the BC natural gas industry closer to the Alberta

model, which is a more laissez-faire approach to business that involves less regulatory involvement.

The Effect of the Western Accord

The Western Accord was the federal government's first step toward deregulating the energy industry. It was designed to revitalize the Canadian energy industry by deregulating the crude oil pricing and marketing, take the first steps in making the natural gas industry more market-oriented, and eliminating a number of federal oil and gas taxes or charges including the Petroleum and Gas Revenue Tax, the Petroleum Compensation Charge, and the Canadian Ownership Special Charge (Energy Mines & Resources Canada, 1985a).

When those interviewed were asked what, if any, effect the Western Accord had on Westcoast only half were willing to comment on this question. The other half knew very little about the policy and therefore chose not to comment. Those that did comment pointed out that the majority of the industry changes resulting from this particular agreement were aimed at the oil industry. The only policy changes from this Accord that affected the natural gas industry were the elimination of the Petroleum and Gas Revenue Tax and the Canadian Ownership Special Charge. Those interviewed were not willing to speculate as to whether there were any indirect effects to Westcoast or the natural gas industry as a result of the changes to the taxes and charges specifically applied to the oil industry. The general view was that it was subsequent deregulation tools, including the Agreement on Natural Gas Markets and Prices, the Framework for Light-Handed

Regulation and Negotiated Toll Settlements that had a much greater impact on Westcoast.

Changes to the Marketing of Natural Gas

The Accord resulted in changes to the marketing of natural gas in a number of ways. As one respondent pointed out there was a transition period that was required in which all the contracts had to be renegotiated as a result of the financial changes to the regulatory structure. Another respondent felt that it opened the market up so that the pipeline companies had to get out of the buying and selling business. Gas marketing became an independent business with a number of companies, both large and small niche market companies, entering that end of the business. Initially the number of companies that entered this field was substantial but that number has decreased in recent years to just a few companies. The reduction in the number of companies in the marketing business today may be due to the complexity of the business and due to problems that companies like Enron have encountered.

The result of the elimination of the gas taxes and charges

Although, over the long term, Westcoast revenues increased subsequent to this policy change and the price of natural gas decreased, it was argued that these changes in taxes and charges were not independently responsible for these changes. For example, the oversupply of gas at the time and the resulting changes due to market forces would have to be taken into consideration. When supply exceeds demand the price drops. Whether a

portion of this decrease is attributable to the elimination of the taxes can only be speculation.

The respondents felt that it was likely impossible to retroactively determine the effect of the elimination of the gas taxes and charges on the company's bottom line. There are too many other variables that would affect the change in revenues and prices to make this determination.

The positive effect of the elimination of the PGRT

The elimination of the Petroleum and Gas Revenue Tax (PGRT) was supposed to promote large-scale reinvestment in Canada. Whether the large-scale diversification and expansion for Westcoast Energy in the decade following this policy (1985 – 1995) was related to this policy change was the question. The respondents that replied to this question suggested that the elimination of the PGRT did have a positive effect on the company—albeit probably not independently. The following examples were provided.

Westcoast expanded significantly from 1985 to 1995 through the acquisition of a number of other companies, including Union Gas in Ontario. TransCanada Pipelines also undertook huge expansions across the country and transportation infrastructure expanded dramatically to serve new markets. Again, as was pointed out by those interviewed “whether this expansion was due to the need to serve new markets and distribute the build up of supply or whether it was partly as a result of companies now having additional revenue that they did not have to pay out in taxes is pure speculation”.

The substantial pipeline expansion that took place and the renewed interest in oil and natural gas exploration in Western Canada required to support those expansions would have been difficult to do under a fully regulated scenario. When the taxes were eliminated it gave the companies the opportunity to redistribute these dollars providing more money for exploration.

The Effect of the Agreement on Natural Gas Markets and Prices

The respondents were asked to comment on the success of one of the major goals of the Agreement, which was *to improve market access for producers, particularly the export markets*. They were also asked to comment on whether they felt there were any other benefits or drawbacks of the Agreement. Again, the response to this question was limited to half of the respondents.

Generally those that responded felt that the Agreement on Natural Gas Markets and Prices had a positive effect on Westcoast, particularly regarding the goal to improve market access for producers. One respondent replied: “As the producers got access to the expanded markets (both the domestic and the export markets) they needed a way to transport the gas – for Westcoast to meet that need and remain competitive it meant huge expansions both in gathering and processing facilities as well as in pipelines.” This was also the case for TransCanada. So it did not just affect BC.

This Agreement was also identified as being beneficial in terms of allowing competition and a greater number of people having access to pipeline capacity. This was not, however without its drawbacks. This change in pipeline access moved the company into

more economic regulation because they had to adjust how their tolls and tariffs were structured. One respondent felt that “this was probably the first step in deregulation and that the second step occurred in the mid 90’s when people were getting into incentive agreements with their shippers like TransCanada and ourselves”.

One of the other goals of this Agreement was to lower prices for consumers. All participants referred to the achievement of this goal throughout the interview discussions. Exhibit 8 illustrates the effect of deregulation on the Canadian Spot Market Export Prices for the decade following deregulation.

Subsequent regulatory changes (e.g., Incentive Settlements, Framework for Light-Handed Regulation)

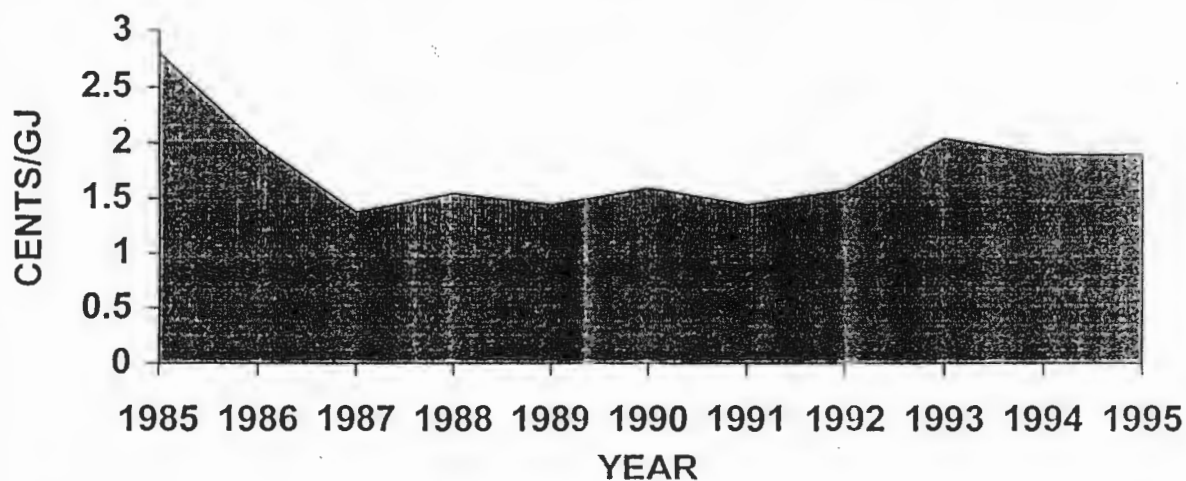
The regulatory changes that took place within Westcoast Energy subsequent to and as a result of the Western Accord and the Agreement of Natural Gas Markets and Prices were what had the greatest effect on the company from a regulatory perspective. The Incentive Settlements and the Framework for Light-Handed Regulation changed the way the company conducted its business.

All those interviewed who were familiar with the Framework for Light-Handed Regulation (the majority) agreed that its effects were positive. All those interviewed agreed that the subsequent Incentive Settlements were also positive and that this Framework and Settlements had the greatest impact on Westcoast as far as deregulation is concerned. Because the responses received on both of these tools are substantial, the remarks are summarized separately.



Impact of Deregulation on Natural Gas Prices

CANADIAN SPOT MARKET EXPORT PRICES 1985-1995



Source: Westcoast Energy Inc. (1997). Presentation by B. Jardine to The Australian Gas Association Overseas Scholars, September 19, 1997. Westcoast Energy Inc., Pipeline Division.

Framework for Light-Handed Regulation

The Framework for Light-Handed Regulation was negotiated in 1998. This framework provides a mechanism by which Westcoast's tolls for gathering and processing services will be based on negotiated arrangements, replacing the existing regulatory system with a complaints-based system. As a number of those interviewed pointed out, "since the implementation of this regulatory structure we have been able to customize deals with our customers and we have not had any major complaints. Those that have been lodged have been worked out prior to the NEB having to impose a decision". This model allows Westcoast to customize services to meet customer's needs.

The rationale for this Framework was to try to maintain market share in what was now a very competitive natural gas processing environment. Westcoast could now enter into customized agreements that provided customer service on an "as required" basis at a cost equal to what it would cost the customer if they were to provide the services themselves but save them the development and capital costs. This change from a cost-of-service regulatory structure to a more market based approach allowed Westcoast to continue to effectively compete against producers who were threatening to build their own plants and bypass the Westcoast plants.

To facilitate this Framework the company assumed all of the utilization risk on the facilities involved. To insure this risk and to remove a number of regulatory shackles, Westcoast wanted to be able to negotiate confidential shipper agreements and negotiate prices within certain limitations. These limitations were as follows:

- 1/ Westcoast would publish the rates in ranges so that there was some transparency in pricing
- 2/ They built in certain terms and conditions in the contracts general terms and conditions that would be the same for everyone so that there was equity in the service provided
- 3/ There was a fair dealing policy included in the Framework which put certain limits on Westcoast's ability to discriminate but still allow for customized agreements.

This Framework "has worked fabulously" according to those interviewed. There is still some regulatory oversight to the way Westcoast conducts its gathering and processing business in that if customers feel they are not being dealt with fairly they can still go to the NEB and complain. The NEB would then hold an inquiry or a hearing into whether or not Westcoast was dealing fairly with the complainant. To date there has been very little cause for NEB intervention and the Framework has led to improved customer relations (according to those interviewed) between Westcoast and its customers and a substantial reduction in the regulatory costs for the industry.

Incentive Settlements

This new method of regulation has resulted in tolls for gathering and processing service that can be negotiated based on market conditions; a reduction in the controversy arising from applications for expansion of service and for special tolls; a quicker response by

Westcoast to customer requests; more stable tolls; and an increase in activity in the Province to record levels just one year after (1997) producers threatened to leave BC.

Some of those interviewed felt that the move to open-access was the first step in deregulation and the 2nd step was the move towards incentive based regulation rather than strict cost-of-service regulation. This resulted in Westcoast becoming a more focused company. Because of the cost control incentives now in place “the company looked more at its bottom line rather than just flowing everything through to the toll payer”. This was seen as a benefit. “In the old cost-of-service model you tried to flow as much through to the shipper as you could; so that led to lengthy, yearly hearings to determine what your tolls for the upcoming year would be. Under incentive settlements there were more risks put on the pipeline to control their costs”.

The incentive settlements “allow us to make a little more than the posted returns if we do more and take on more risk. For example, under certain conditions, if we develop a new business product that has some value we will earn a share of the improved cash flow. If we are more efficient with our costs and use less fuel and things like that we can earn a share of that”. Previously the company earned nothing so there was no incentive to improve efficiency or reduce costs. There have been three Incentive Settlement Agreements, the first was a one-year agreement in 1996, the second a five-year agreement that ran from 1997 – 2001 and a third that that is in effect for the years 2002 and 2003.

Although both of these tools are working well and have helped bridge the gap for Westcoast between regulation and deregulation, the company still has to contend with the rigorous federal regulations under the NEB regarding facilities expansion and the building of new facilities. The Board has very long and complex processes for environmental and project review that can take up to 2 years (e.g., the Grizzly Valley extension pipeline and the new plant in the Pine River Pass area) to get approval. This greatly reduces any competitive advantage Westcoast has when competing with other companies that fall under provincial regulation in which the process is much less rigorous and substantially shorter. This is primarily due to Westcoast being the only gathering and processing business in North America that is federally regulated.

Potential consequences of deregulation of natural gas transmission and distribution

For deregulation to take place successfully, competition has to be there to ensure that market abuse does not take place. As mentioned previously, natural gas pipelines are considered a monopoly because they have technical economies of scale, they are not subject to significant competition from other forms of transportation, the high capital cost of building a pipeline creates a barrier to competition, and duplication of pipelines would be wasteful in an environmental and economic sense. This is particularly true in BC. There is a similar monopoly situation in BC in the distribution sector in that BC Gas is the primary distribution company.

Of those interviewed, one suggested that there was already deregulation to a certain extent in these sectors. In the transmission sector this deregulation was in the form of incentive-based regulation. On the distribution side it was thought that the performance-

based regulation was the first step in deregulation. The majority focused their discussion on the monopoly argument and whether or not financial deregulation could occur where a competitive market is not present. It was generally agreed that given a competitive marketplace where there is unfettered opportunity for companies to enter the transmission and distribution sectors, deregulation would have similar, positive effects on the industry to the deregulation of the gathering and processing sectors. However, this is not the case in BC.

Because there is only one transporter (or at least one has the lion's share of the market), Westcoast, and one primary distributor, BC Gas, there is virtually no competition in the transmission and distribution sectors of the industry in British Columbia. If the transmission and distribution sectors were to be deregulated it was felt that would be a positive step as far as Westcoast is concerned. However, without competition, there is a concern about market power. Therefore, such deregulation is not likely to happen any time soon.

The situation in Ontario and Alberta is substantially different in that there are a number of companies in the transportation and distribution business from which customers can choose so the fear of market power is not as prevalent. Ontario and Alberta are also different in that they both have substantial storage facilities allowing local distribution companies to purchase gas when it is cheap and store it until needed (i.e., in the winter time). BC does not have that same advantage, but it is part of the energy policy to build a storage facility in the future.

As was noted earlier, there is potentially a second pipeline being built in the province. If and when this pipeline is completed and operational, providing customers an alternative, financial deregulation may occur. It will be extremely important that if and when this additional pipeline comes on line, deregulation occurs simultaneously so that there is fair competition. Without deregulation there are a number of variables that would create unfair competition. First, the proposed pipeline will be wholly within the province and therefore fall under the BCUC, which does not regulate prices. Second, BC Gas, the proponent of the new line, is proposing to run this line across the bottom of the province, a new route, and tie into gas produced in Alberta which may or may not involve a price differential.

The overall response to deregulation of the industry is positive. There was however some uncertainty regarding the effect on the company of complete financial deregulation of the industry.

Summary

The four primary deregulation tools that have had an effect on Westcoast are The Western Accord (June 1985), The Agreement on Natural Gas Markets and Prices (November 1985), the Framework for Light-Handed Regulation (1998) and the three Incentive Toll Settlements (1996, 1997, 2002) (See Exhibit 9).

The Accord and the Agreement on Markets and Prices were national agreements impacting, to differing degrees, all of the Western provinces. The last two tools are specific to Westcoast Energy and were developed by the company, in consultation with a

Exhibit 9 – The Deregulation tools affecting Westcoast

Deregulation Tool	Date implemented	Sector of the company affected
The Western Accord	June 1, 1985	All sectors. The elimination of different taxes and some operating regulations affected the gathering, processing and transportation sectors. Initiated industry pricing restructuring discussions.
The Agreement on Natural Gas Markets and Prices	November 1, 1985	All sectors. Lifted the floor and ceiling prices so that the price for gas could be freely negotiated. Relaxed export controls to provide for greater market opportunities.
Framework for Light-Handed Regulation	March 1998	Gathering and Processing sector. Now operates under a complaints-based regulatory structure. The regulators only get involved if contractual disputes cannot be resolved by the parties involved.
Incentive Toll Settlements	1 st Settlement – 1996 2 nd Settlement – 1997 – 2001 3 rd Settlement – 2002 - 2003	Transmission sector. Provides for the ability to negotiate terms of service based on standard agreements.

number of stakeholders. The Framework for Light-Handed Regulation “represents a joint industry solution for the ongoing regulation of Westcoast’s gathering and processing services by replacing the existing system of active financial regulation by the Board with a complaints-based system” (Westcoast Energy Inc., 1998, p. 2). The purpose of the Incentive Toll Settlements was to “provide incentives for Westcoast to operate in a

manner consistent with the increasingly competitive nature of the natural gas industry and incentives for Westcoast to provide competitive service to its Shippers” (Westcoast Energy Inc., 1996, p. 1).

Expanding natural gas deregulation into the transmission and distribution sectors of the industry and how that would affect Westcoast can only be speculation at this point. What affect that total financial deregulation will have on the company remains to be seen but according to the respondents, Westcoast has found it easier to operate with minimal regulatory intervention.

CHAPTER 5

CONCLUSIONS

This work has described the structure of the natural gas industry and its management in Canada, particularly in British Columbia and Alberta, outlining the spectrum of government involvement. I have also reviewed how the industry is regulated (one of the more prominent policy implementation tools in the natural resource policy arena), how regulation came about, and the regulatory structure of the industry at present. It was during this review that it became apparent that there is a substantial difference in this regulation across the country, particularly in British Columbia. The reason for this differentiation can be attributed to the structure of the industry in this province and how it developed—almost solely around one company, Westcoast Energy Inc.

As the industry grew and markets changed, the natural gas policy arena changed from one involving a heavily regulated environment to a more market driven environment in which taxes and price ceilings were lifted by the federal government and the markets were left to work as economics dictate in the gathering and processing sector of the industry. This policy transition was particularly noticeable in BC where the structure of the industry differed and competition in every sector did not exist.

Overall the effect of deregulation on the natural gas industry has been a positive one. Similarly, Westcoast Energy has benefited from less financial regulation and government intervention in the marketing of natural gas. This deregulation of the gathering and processing sector had positive results on the company allowing it to compete more effectively with regard to price. It was now able to adjust its rates so that it is more

competitive with other midstream companies. Prior to deregulation the NEB mandated fixed rates on Westcoast, unlike companies that were provincially regulated, giving the unregulated companies an unfair advantage. Deregulation was a step toward leveling the playing field and extracting Westcoast from the vice of fixed supply contracts on the one side and fixed border prices on the other.

Deregulation also prompted Westcoast to re-engineer the way it did business to more effectively meet the demands of the market and focus on its core business—transportation. In addition to, and as a result of, the marketing changes in the gathering and processing sector the pipelines were required to get out of the business of buying and selling gas on their own account and become open-access systems. This was relatively straight forward for most pipeline companies. However, the implications were quite different for Westcoast, again due to its federal regulatory structure. This prompted Westcoast to again re-engineer its business practices, this time on the transmission side. The result was the Incentive Settlements.

The combination of the deregulation policies to date (the Western Accord, the Agreement on Natural Gas Markets and Prices, the Framework for Light-Handed Regulation and the Incentive Settlements) have helped Westcoast to reduce costs, have resulted in improved customer relations and have helped to level the playing field with respect to equity in marketing and pricing relative to other companies in the industry.

“There is still a substantial discrepancy between Westcoast and other companies in the industry regarding capital expansion (i.e., plants and pipelines)” (anonymous). The federal regulatory requirements under the NEB are onerous and cause substantial

development delays. The Board's long and complex process for environmental and project review greatly diminishes any competitive advantage Westcoast has when competing with other companies that fall under provincial regulation, which is a much shorter and less rigorous process.

This federal/provincial jurisdictional difference would also pose significant difficulties if competition were introduced into the transmission sector. If pipeline development proceeds as anticipated in BC, and those lines are wholly within BC, they will fall under provincial jurisdiction and be regulated by the BCUC. This may create differential competition due to the Westcoast pipelines being regulated by a different regulator.

Implications of these results

It is important to note that the results of this particular case study cannot be generalized and be expected to apply to other companies in the natural gas industry. The effect that deregulation has had on Westcoast Energy is a result of the unique structure and size of the company in the natural gas industry, forcing the resulting regulatory model. It can be presumed that if all things are equal in company structure, the same regulatory model would result and apply. However the effects of deregulation on Westcoast Energy have occurred because of its industry dominance in the province. The resulting changes might have looked very different if Westcoast Energy was an Alberta company where competition in all sectors is prevalent. Whether these findings can be generalized with respect to theoretical policy implementation is another question.

It is hoped that this research is useful to colleagues in the field of natural gas deregulation, to policymakers, and practitioners. It is also hoped that this research is of

interest to those at Westcoast (Duke) Energy and others in the same business and that it contributes in some small way to the understanding of the structural and regulatory quagmire that makes up the natural gas industry in Canada, particularly in the two dominant natural gas producing provinces of British Columbia and Alberta.

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APPENDIX 1

Glossary of Terms

GLOSSARY OF NATURAL GAS REGULATION TERMS

Bundled Service	A service provided by a pipeline or a local distribution company which includes the natural gas as well as all the necessary services required for a consistent supply (backstopping, load balancing, storage).
Bypass	The ability of customers (usually industrial) to obtain gas directly from a pipeline and thereby circumvent the local distribution company.
Canadian Ownership Special Charge (COSC)	A federal levy imposed on natural gas and oil to help defray the costs of Canadianization of the energy industry.
Commingling	the homogenous mixing of gas from various physical sources.
Commodity Charge	The portion of the cost to transport natural gas on a gathering, transmission or distribution system that is variable (i.e., it is a per/unit charge that depends on the quantity shipped).
Contract Demand	The maximum volume of natural gas that will either be (a) shipped by the gathering/transmission/distribution system or (b) supplied by the gas seller. The seller (shipper) is obligated to supply (transport) natural gas volumes up to the contract demand volume.
Cost -of-Service	A term used in public utility regulation to mean the total number of dollars required to cover the LDC's (local distribution company) costs (i.e., revenue requirements). The costs that are included can include an amount to cover operation and maintenance expenses and other necessary costs such as taxes (income taxes, depreciation, depletion and amortization of the property not covered by ordinary maintenance. A "fair" return on capital and owners' equity is also allowed to ensure that the LDC maintains financial integrity, attracts new capital, and compensates the owners for the risks involved.
Distribution System	Generally the distribution system consists of mains, service connections, and equipment that carry or control the supply of natural gas from the inter-provincial or interstate pipeline systems, or the point of local supply, to the individual, end users.
Downstream sector	One of three "streams" in the gas development process. The downstream sector consists of the large, long-distance natural gas transmission pipelines and the local distribution pipelines that take

gas directly to consumers. The other two streams are the Midstream and Upstream sectors.

Established Reserves	The category of natural gas reserves which have the highest probability of being produced. The exact definition used by the National Energy Board is: "The reserves recoverable under current technology and present and anticipated economic conditions, specifically proved by drilling, testing, or production, plus that judgement portion of contiguous recoverable reserves that is interpreted to exist, from geological, geophysical or similar information, with reasonable certainty".
Force Majeure	Literally means superior or irresistible force that excuses a failure to perform. Force majeure events must not have been reasonably foreseeable. This provision is common in natural gas contracts because it specifies the effect force majeure will have on the rights and obligations of the parties under the contract.
Gas flaring	the burning of surplus combustible vapors
Incentive Regulation	A variety of methods for regulating natural gas pipeline operators which have an incentive "bonus" built into them.
Incremental Tolls	Tolls that are charged on the newly expanded part of a pipeline system. This is one method of creating tolls to pay for an expansion of a pipeline, the other is Rolled-in Tolls.
Marketer	A marketer is either: (i) a part of a natural gas production company (or a subsidiary) which sells gas to final consumers or distribution companies; or (ii) an independent corporation which purchases gas from one or more producers and resells it to final consumers or local distribution companies. The second type are also referred to as AGGREGATORS.
Midstream Sector	One of three "streams" in the gas development process. The midstream sector consists primarily of the larger processing facilities and the pipelines that tie these fields and processing facilities together. The other two streams are the Downstream and Upstream sectors.
Open-Access	A gathering/transmission/distribution system that transports gas on a non-discriminatory basis to any party that wishes to contract for the gas.
Pipeline	All parts of the physical facility through which gas is moved in transportation, including pipe, valves, and other appurtenances

attached to the pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

Postage Stamp Rates	A single rate for the entire system; in contrast to zone for mileage based rates.
Rateable take	Rateable take means that producers taking gas from the same filed agree to take their gas at a particular rate so as to maximize the amount of gas that can be recovered from the field and protect the integrity of the well which also maximizes the amount of gas that can be recovered (B. Jardine email, 2002).
Removal Permits	Removal permits provide authority for natural gas to be removed from the province
Rolled-in Tolls	A toll whereby the cost of an expansion is “rolled into” the overall costs to operate the pipeline. It is one method of creating tolls for an expansion of a pipeline system.
Royalties	Royalties are set by the government on crown lands and are negotiated with freehold owners on freehold lands”. Companies pay the government the value of the natural gas. The value is determined by multiplying the “average market price” by the royalty (percentage of production) (CERI, section 9, p. 18).
Seismic surveys	Seismic surveys are surveys conducted to obtain detailed information from the earth’s vibration. This vibration is created by discharging explosives in hollow boreholes, or by striking the surface with a heavy blow. The nature and velocity of these vibrations (as measured by a seismograph) indicate the general nature of the section of earth through which the vibrations pass. The results of these tests indicate probably oil and gas bearing structures (CERI, 1999).
Spot Market	A market characterized by short-term contracts for specified volumes of gas. Participants may be producers, marketers, brokers, LDCs or end-users.
Take-or-Pay Clause	A clause that requires a minimum quantity of gas to be paid for, whether or not the gas is actually taken by the purchaser.
Transmission System	Pipelines that transport natural gas over long distances (usually from supply to market regions or to other transmission systems). A transmission system usually has a linear configuration, large diameter pipe, and they operate at high pressures.
Unbundled Service	The separation of pipeline services into discrete components (e.g., transportation, storage, gathering, sales, etc.) Separate fees are

charged for each service, based upon only the cost of providing that service.

Upstream Sector	One of three "streams" in the gas development process. The upstream sector consists of the large and small companies that find and develop natural gas reserves and operate gathering pipelines and processing plants. The other two streams are the Downstream and Midstream sectors.
Well abandonment	Wells that are not in use because they have ceased to produce natural gas or because they were dry holes

APPENDIX 2

The Western Accord (effective June 1, 1985)

COMMUNIQUE

85/37

March 28, 1985

FEDERAL GOVERNMENT AND PRODUCING PROVINCES ANNOUNCE THE WESTERN ACCORD

OTTAWA — The governments of Canada and the energy-producing provinces of Saskatchewan, Alberta and British Columbia have reached a comprehensive oil and natural gas agreement designed to revitalize the Canadian energy industry, Energy, Mines and Resources Minister Pat Carney announced today.

The agreement — The Western Accord — calls for the total deregulation of Canadian crude oil pricing and marketing, takes steps to make the natural gas industry more market-oriented, and eliminates a number of federal oil and gas taxes or charges, including the Petroleum and Gas Revenue Tax (PGRT), the Petroleum Compensation Charge (PCC), and the Canadian Ownership Special Charge (COSC).

"This is truly an important day for Canada," Miss Carney said. "This agreement continues the excellent spirit of federal-provincial cooperation which began with the election of the Mulroney government in September 1984 and continued with the signing last month in St. John's of the Atlantic Accord. Today, we take the spirit of St. John's one giant step further."

The federal minister, who reached an agreement with her western counterparts earlier this week, said the end to controversial energy taxes, and deregulation beginning June 1, 1985, will produce jobs and economic growth throughout the country. She added that this Accord fulfils the commitments made by the Progressive Conservative Party during the federal election.

A key element of the Accord will be the deregulation of crude oil prices. This will provide an environment which will allow consumers to take advantage of decreasing oil prices. These oil prices were frozen at an artificially high level under the old administered pricing system.

- more -

A second key element of this Accord is the phasing out of the PGRT on existing production and its elimination from new production and projects. "This will mean large-scale reinvestment in Canada," Miss Carney added. "And under the terms of the Western Accord, the federal government and those of the producing provinces expect such reinvestment to occur. To ensure that it does, we will be monitoring industry performance very carefully."

Another important tax measure in the Accord will permit companies in a nonprofit position — which are mainly Canadian — to compete on a more equal footing with the multinational corporations. They will be allowed to offset unused new exploration and development expenditures against the PGRT. In addition, the existing \$500 000 small producers' credit will be supplemented by the introduction of an exemption for individuals of \$10 000 of resource income from the PGRT.

Miss Carney said that Canadian consumers will be protected from the volatility of the international markets. If world prices escalate rapidly, or if security of supply is threatened, the federal government, in consultation with the producing provinces, would take appropriate measures to protect Canadian interests.

For consumers, the Minister said the Western Accord maintains natural gas prices at their present level pending the introduction of a new domestic gas pricing regime which will be in place by next November. A joint task force of senior government officials will be appointed to work closely with industry and consumers to finalize the new pricing system.

Miss Carney also said the Petroleum Incentives Program, which provides cash incentives to petroleum companies exploring for oil and gas, will be phased out by next year. The Government of Canada will consult with the maritime provinces and Territorial governments on appropriate royalty incentives to help spur frontier petroleum investment. All outstanding commitments made under PIP will be honoured through 'grandfathering' provisions.

For further information contact: Andrew Hutton
Press Secretary to the Minister
(613) 993-5252

The Western Accord

*an agreement between
the Governments of Canada,
Alberta, Saskatchewan and
British Columbia on
oil and gas pricing and taxation*

ENERGY PRICING AND TAXATION UNDERSTANDING

The Governments of Canada, Alberta, Saskatchewan, and British Columbia are agreed on the need to modify the existing taxation and pricing regime in order to stimulate investment and job creation in the energy sector in Canada and to increase the degree of energy security for all Canadians. The four Governments further agree that these objectives can best be met within a regime of market-sensitive pricing for both oil and gas and within a fiscal regime based on profit-sensitive taxation. To this end, the four Governments agree to replace existing arrangements covering the pricing and fiscal treatment of oil and gas with the provisions set out below. These provisions deal respectively with:

- I Deregulation of Crude Oil Prices
- II Domestic Natural Gas Pricing
- III Fiscal Principles

I DEREGULATION OF CRUDE OIL PRICES

IT IS AGREED that market pricing of oil is desirable and will be implemented as follows:

- 1.** For the purposes of this understanding, 'oil' means crude oil, pentanes plus, synthetic oil and crude bitumen, unless otherwise stated.
- 2.** Oil may be purchased from Canadian or foreign sources without restrictions on volume, and at prices freely negotiated between buyers and sellers, subject to Clauses 5 to 9.
- 3.** The Government of Canada agrees, subject to Clauses 8 and 9, to remove the export charges on oil and petroleum products, the Oil Import Compensation Program and the Petroleum Compensation Charge.
- 4.** Movement of crude oil and petroleum products between provinces, and for import and export purposes, shall be in accordance with federal and provincial legislation established for safety and/or environmental reasons.
- 5.** Concerning the role of the National Energy Board (NEB):
 - i.** Consistent with the move to market pricing, volume and price restrictions on short-term crude oil and petroleum product exports will no longer be required.
 - ii.** The NEB will issue non-restrictive licences for short-term exports, on an after-the-fact basis, to permit monitoring of volumes and prices. The NEB will report monthly to the Minister of Energy, Mines and Resources on these oil export matters. Distortions in the competitive market or particular problems associated with a free market which are identified through such monitoring will be addressed by the Minister of Energy, Mines and Resources as they arise, following consultation with provincial governments.
 - iii.** The NEB will, in appropriate instances, ensure that export contracts for periods exceeding one month contain force majeure clauses.
 - iv.** Longer-term exports, of more than one year for light crude and petroleum products and two years for heavy crude (as defined by the NEB) will continue to require prior approval of the NEB and the Governor-in-Council.
 - v.** The NEB's practice of allocating light crude oil among eastern Canadian refineries will be discontinued.
- 6.** The producing provinces shall retain their power to control production of crude oil to ensure good conservation practice or, in the event of market constraints, to ensure equitable sharing of production.

7. Consistent with the spirit of deregulation, the Alberta Petroleum Marketing Commission will cease to act as the exclusive agent for the marketing of the Crown lessees' share of crude oil and pentanes and will, in its role as buyer and seller of oil in Alberta, be in competition with buyers and sellers of oil in the private sector.
8. In the event that supplies of crude oil and petroleum products to Canadian consumers are significantly jeopardized, the federal government, after consultation with producing provinces, may restrict exports to the extent it considers necessary to ensure adequate supplies to Canadians.
9. In the event of international oil market disturbances that result in sharp changes to crude oil prices, with potentially negative impacts on Canada, the Government of Canada, following consultations with provincial governments, will take appropriate measures to protect Canadian interests.
10. These principles, effecting oil price deregulation for Canada, will come into effect on June 1, 1985.

II DOMESTIC NATURAL GAS PRICING

IT IS AGREED that a more flexible and market-oriented pricing mechanism is required for the domestic pricing of natural gas. It is recognized that a new domestic pricing regime that is equitable to the producing, transporting and distributing components of the industry, and is acceptable to producing and consuming provinces, requires extensive consultation with the interested parties. To facilitate this consultation and develop a new market-sensitive pricing system it is agreed that:

1. The Alberta border price will remain at its present level pending the introduction of a new domestic natural gas pricing regime on or before November 1, 1985.
2. A task force of senior officials from the federal government and the producing provinces will work with all interested parties, including consuming provinces and industry, to develop a more flexible market-sensitive pricing mechanism on or before November 1, 1985.
3. The subsidy of TransCanada PipeLines tariffs under the federal Transportation Assistance Program will be terminated in conjunction with the elimination of the Canadian Ownership Special Charge.
4. The Natural Gas Market Incentive Plan under which Alberta producers provide a price discount to industrial customers in eastern Canada will be extended for one year until April 30, 1986.
5. The Market Development Incentive Payments by the Province of Alberta to the Government of Canada will terminate following payments for gas delivered up to April 30, 1986, or to a maximum level of \$160 million in additional payments, whichever comes first.

III FISCAL PRINCIPLES

IT IS AGREED that changes to the fiscal regime for the petroleum industry are needed:

- to promote industry investment which furthers energy security and economic growth; and
- to ensure that the producing industry is taxed on the basis of profits rather than revenues.

Consistent with these objectives, it is agreed that the following measures will be implemented as soon as is possible:

1. The Government of Canada will remove the following taxes or charges: the Natural Gas and Gas Liquids Tax (which includes the Natural Gas Export Levy), the Incremental Oil Revenue Tax, the Canadian Ownership Special Charge, the Crude Oil Export Charge and the Petroleum Compensation Charge.
2. The Government of Canada will not introduce any special tax on the oil and gas producing industry in order to recover the deficit in the Petroleum Compensation Account.
3. The Petroleum Incentives Program will terminate one year from the date of announcement of this understanding. Notwithstanding this termination, there will be 'grandfathering' arrangements for existing Exploration Agreements.
4. (a) For new production of oil, natural gas and gas liquids on or after April 1, 1985, the Petroleum and Gas Revenue Tax will not apply. Further, subject to federal approval, the Petroleum and Gas Revenue Tax will not apply to natural gas or oil consumed by or produced by major new energy projects undertaken on or after April 1, 1985.

The PGRT levied on prior production will be phased out according to the following schedule:

<u>PERIOD</u>	<u>EFFECTIVE TAX RATE (%)</u>	
	<u>Conventional Oil and Gas</u>	<u>Synthetic Oil</u>
January 1/86 - December 31/86	10.0	6.0
January 1/87 - December 31/87	8.0	4.0
January 1/88 - December 31/88	6.0	2.0
January 1/89 and thereafter	0	0

- (b) In addition to the small producer's credit, the first \$10 000 of an individual's resource income will not be subject to the Petroleum and Gas Revenue Tax.
- (c) The current EOR fiscal regime will continue to apply.

5. The parties to this understanding agree that the phase-out of the PGRT is required to enhance the producing industry's capability to reinvest in the development of new oil and gas resources for all Canadians. Canadian security of supply requires that a high level of reinvestment occur. The federal and producing governments expect such reinvestment will occur and will pursue an active program of monitoring industry reinvestment to ensure that Canada's energy security objectives are realized.
6. To assist companies which are not currently paying corporate income tax, the Government of Canada will allow new exploration and development write-offs which are not immediately usable under the federal corporate income tax to reduce the Petroleum and Gas Revenue Tax otherwise payable. The reduction will be calculated as 30 per cent of the unused amount of write-offs related to new expenditures in the year. The reductions will be applied to PGRT payable on both production income and resource royalty income, for corporations only, and will be taken after the 'small producer credit' calculation.
7. The Government of Canada agrees that tax-based incentives designed to stimulate investment in Canada's oil and gas industry shall be of general application to the industry without discrimination as to the location of the activities in question or as to ownership and control.
8. The Government of Canada will consult with the maritime provinces and Territorial governments on appropriate royalty incentives to help spur frontier petroleum investment.
9. The parties to this understanding agree that the benefits resulting from aforementioned changes to the federal tax regime shall flow through to the oil and gas industry. The parties also agree that any net benefits resulting from crude oil price decontrol, as determined by their respective jurisdictions, shall flow through to the industry. The calculation of the net benefits shall take into account the termination of the crude oil export charge.
10. The parties to this understanding reserve the right, as resource owners, to establish and adjust from time to time their royalty and incentive systems for the development of oil and gas within their respective jurisdictions. Such adjustments, including changes to APIP, shall be consistent with the objective expressed above of flowing through to industry the net benefits of the fiscal and price decontrol changes agreed to herein.

BACKGROUND

NATURAL GAS PRICING

Since 1975, the prices of Alberta natural gas sold in Saskatchewan, Manitoba, Ontario and Quebec have been administered under agreements between the governments of Canada and Alberta. During this period, natural gas prices were linked to crude oil prices.

From 1975 to 1981 gas prices were set at about 85 per cent of crude prices; from 1981 to the end of 1984 the relationship was 65 per cent. However, the natural gas industry and gas consumers have argued to governments that a pricing system that links gas prices to oil prices is inflexible, and that a pricing regime that is responsive to natural gas market conditions is necessary.

Canada and the producing provinces have now agreed to develop, together with consuming provinces and the natural gas industry, a market-responsive pricing system to be implemented on or before November 1, 1985. The objective is to allow prices to be negotiated between buyers and sellers of natural gas.

Interim Pricing

For the interim period, April 1 to November 1, the governments of Canada and Alberta have agreed to freeze the Alberta Border Price of gas at its current level of \$2.79 per gigajoule. The current wholesale price of gas in eastern Canada is \$3.86 per gigajoule. With the Alberta Border Price frozen, and the elimination of the Canadian Ownership Special Charge on natural gas (see below), the current wholesale price of gas in eastern Canada is expected to decrease somewhat.

Market-Sensitive Pricing

For the longer term, governments have agreed to establish a task force of senior officials to advise on the implementation of a market-sensitive system for natural gas pricing by November 1 of this year.

The task force will rely on assistance from representatives of the gas industry from both the producing and consuming sectors. As well, the governments of consuming provinces will be consulted to assure that their views are incorporated into the new gas pricing system.

The intention is to establish, on or before November 1, 1985, a natural gas pricing system that will be responsive to conditions in the marketplace.

Natural Gas Marketing Incentive Program

In certain industrial markets where natural gas faces stiff competition from alternative fuels, the governments of Alberta and Canada implemented, early in 1984, the Natural Gas Marketing Incentive Program. Under this scheme, gas producers pay up to \$0.35 per gigajoule to encourage load retention and the development of incremental industrial markets east of Alberta. The governments

have agreed to continue this program for one more year, until April 30, 1986, at which time it is expected that whatever incentives are required to retain and expand industrial gas markets will be established through buyer-seller negotiations.

Transportation Assistance Program

In February 1984 the federal government implemented the Transportation Assistance Program (TAP), which reduces the cost of transporting Alberta natural gas to eastern markets. This program will continue at its present level of \$0.057 per gigajoule until the Canadian Ownership Special Charge (COSC) of \$0.14 per gigajoule is removed. When the COSC and TAP are eliminated, wholesale prices will therefore fall approximately \$0.08 per gigajoule.

Market Development Incentive Payments

Under previous agreements, the federal government administers four programs to develop and expand markets for Alberta gas. These programs are funded by payments out of wellhead revenues called Market Development Incentive Payments (MDIP). The federal government has spent \$192 million under these programs, and has made firm commitments to spend an additional \$110 million over the next two years. However, payments to date under MDIP total only \$142 million, leaving a deficit of \$160 million. The governments of Canada and Alberta have agreed that the MDIP system will continue to April 30, 1986, or until the \$160 million has been paid to the Government of Canada, whichever comes first.

Natural Gas and Gas Liquids Tax (NGGLT)

The NGGLT was introduced in 1980 on the production of all natural gas and natural gas liquids, including natural gas exports. The rate and base of this tax have changed a number of times over the last few years. Because of the formula, the current rate stands at zero. The Government of Canada will remove this tax entirely.

BACKGROUNDER

, FISCAL MEASURES

The energy pricing and taxation agreement between the Government of Canada and the governments of Alberta, British Columbia and Saskatchewan will provide important benefits to the petroleum industry and to all Canadians. The agreement will encourage energy security and economic growth in Canada by stimulating investment in the oil and gas industry, thereby allowing the industry to make its full contribution to the economy. Federal taxation of the petroleum industry will also be made more profit sensitive. Legislation to implement the agreed fiscal changes will be introduced as soon as possible.

Existing Taxes

The Government of Canada has agreed to remove the following taxes or charges introduced by the previous federal government: the Natural Gas and Gas Liquids Tax, the Incremental Oil Revenue Tax, the Canadian Ownership Special Charge, Export Charges on both product and crude exports and the Petroleum Compensation Charge.

Petroleum Incentives Program

The Petroleum Incentives Program (PIP) will continue for one more year until March 31, 1986. PIP will then be terminated except for eligible exploration expenses incurred in drilling frontier wells required to satisfy existing commitments related to existing Exploration Agreements on the Canada Lands. These eligible frontier wells will continue to qualify for PIP during a further grandfathering period which will extend to no later than December 31, 1987.

Petroleum and Gas Revenue Tax (PGRT)

The current rate of PGRT is 16 per cent, with an effective rate, after the resource allowance where applicable, of 12 per cent on conventional oil and gas and 8 per cent (to the end of 1985) on synthetic oil. Approved enhanced oil recovery (EOR) projects are able to deduct eligible capital costs against project revenues, thus permitting elimination of PGRT until the project attains payout.

Under the terms of the agreement, the PGRT is to be totally eliminated by January 1, 1989. In addition, the PGRT will not apply to approved major new energy projects or to any new production of conventional oil, natural gas or natural gas liquids brought on stream after April 1, 1985.

The PGRT will be phased out for existing production according to the following schedule of effective rates:

	<u>Conventional</u>	(%)	<u>Synthetic</u>
January 1, 1986	10		6
January 1, 1987	8		4
January 1, 1988	6		2
January 1, 1989	0		0

Under this schedule, the rate of PGRT will be cut in half in about two and a half years and eliminated a year later.

A more precise definition and mechanisms for administering a PGRT exemption for new production will be worked out, in consultation with the industry and producing provinces, over the next few weeks.

Individual Exemption

The existing Small Producers' Credit was increased in the November 8 Economic Statement to \$500 000 per year. As a result of this agreement, the Government of Canada has agreed to further reduce the burden of the PGRT on individuals by making the first \$10 000 of income exempt from the tax. This will mean that an estimated two thirds of those individuals who are currently paying PGRT will no longer be required to do so.

Enhanced Oil Recovery Projects

The current EOR regime will continue. New enhanced recovery projects will have the option of current EOR regime treatment, or new oil treatment, as described in the annex to the agreement.

PGRT Offsets

Many smaller aggressive oil and gas companies are unable to use their income tax write-offs on a current basis because they do not yet have sufficient revenues from production. To assist these types of firms, which are typically smaller Canadian companies, the Government of Canada will allow new exploration and development write-offs, which are not immediately usable under the federal corporate income tax, to be used to reduce PGRT otherwise payable. This reduction will be calculated as a nonrefundable credit against their PGRT, at a rate of 30 per cent of the unused write-offs associated with new expenditures in the year.

In order to minimize administrative complexity and taxpayer burden, this offset will be voluntary (i.e., taken at the discretion of the taxpayer). Use of this offset provision will allow the taxpayer to 'cash in' his unused exploration and development deductions.

These offsets will, at least in part and for the next few years, serve as a replacement for PIP for those companies which cannot fully use income tax write-offs.

Nondiscriminatory Incentives

Any new tax-based federal incentives designed to stimulate oil and gas industry investment will be nondiscriminatory in terms of location and ownership. This is not intended, however, to prohibit present or future tax measures of general application to all industries such as the Investment Tax Credit. Neither is it intended to prevent the introduction of specific incentives targetted at particular forms of high-cost production.

Canada Lands Royalties

In view of the major fiscal changes such as PIP and PGRT elimination that are part of this agreement, the Government of Canada will consult with the governments of interested provinces and territories to modify the Canada Lands royalty regime in such a way as to help maintain an appropriate level of petroleum exploration and development activity. Possible royalty modifications to be examined include holidays, rate reduction and revised structures.

Industry Reinvestment

The Government of Canada has agreed to make substantial pricing and fiscal changes in order to provide additional funds for industry reinvestment. A high level of investment is essential to ensure security of energy supply for Canadians and to create more jobs. Based on historical industry performance and extensive discussion with the industry, it is expected that all of the additional cash flows generated by the measures announced today will be reinvested.

To ensure that high levels of reinvestment take place, the parties to the agreement will be actively monitoring industry behaviour. For its part, the Government of Canada will instruct the Petroleum Monitoring Agency to pursue a more intensive program of monitoring industry investment behaviour.

Provincial Flow-Through

The governments have agreed that each of the producing provinces will flow through to the oil and gas industry the net benefits that might otherwise be received as provincial revenues resulting from the following changes:

- crude oil price decontrol;
- phase-out and removal of federal taxes;
- introduction of federal 'offsets' against PGRT; and
- removal of federal and Alberta PIP.

The estimation of these net benefits will be determined by each provincial government for its respective jurisdiction.

Any changes in provincial royalties or incentives will remain completely within the jurisdiction of each province but will be consistent with the agreed principle of flow-through of net benefits from the changes outlined above.

BACKGROUND

CRUDE OIL PRICE DEREGULATION

Canada has had a system of administered oil prices since September, 1973. Under this system, the domestic price of crude oil has been maintained below its international market value. This system is now being dismantled.

From June 1, 1985, producers of oil will negotiate sales contracts directly with crude oil purchasers and the market will determine the price of oil.

With deregulation, buyers of crude will have access to a choice of sources to benefit consumers. Equally, producers will have access to different outlets for their crude.

The system now being dismantled began in 1973 with the freezing of domestic prices of all crude oil. In order to attract investment in new supplies of oil, 'new oil' was granted international prices. This was first applied in 1978 to production from the Syncrude synthetic oil plant at Mildred Lake, Alberta, and later to output of synthetic oil from the Suncor plant. Then, from January 1982, it applied to oil discovered after December 31, 1981. Gradually, the categories of qualifying oil were expanded to include oil discovered from 1974 through 1981.

To deliver these special pricing arrangements, complex government-administered programs were added to the oil import compensation system started in 1974.

The administered oil pricing system has reached the point in 1985 where more than 50 per cent of the oil produced in Canada receives the international price. Including imports, more than 80 per cent of oil consumed in Canada receives some form of compensation. The resulting system of levies, taxes and regulations has imposed serious restrictions on petroleum markets. The system has inhibited the petroleum industry in meeting its full potential for creating jobs and stimulating economic renewal.

Also in 1973, controls were imposed on oil exports to reflect the requirements of the domestic price control regime and to address international oil market developments. All oil exports were subject to licence, issued by the National Energy Board, imposing volume, price and other restrictions on the terms of export contracts. Export charges were levied to make up the difference between controlled domestic prices and those available in export markets.

An improved international oil supply environment, falling Canadian consumption, growing western productive capacity and the increasing cost to the economy of requiring industry to hold back output, has resulted in some relaxation of export controls over the last few years. Currently, Canada exports approximately 29 thousand cubic metres (180 000 barrels) per day of light crude and 42 thousand cubic metres (265 000 barrels) per day of heavy crude. Nevertheless, the system of export charges and licences remained in place, with negative consequences both for the petroleum industry and the economy.

Export charging and licensing provided a disincentive to the development of export markets for Canadian oil by industry. Furthermore, because Canadian oil is subject to government controls rather than strictly commercial considerations, it has tended to sell at a discount in foreign markets. This factor, combined with administered domestic crude oil prices, has generated serious pricing anomalies. Recently, Canadian crude oil has had to be exported at prices substantially below those paid by domestic refineries.

Canada — indeed the world — is in a different position in 1985 than it was a decade ago with respect to energy security. International and national mechanisms for emergency preparedness have been created. Productive capacity exceeds demand. Energy alternatives abound. If international oil market disturbances cause

sharp changes in crude oil prices, which could have a negative impact on Canada, the federal government will take appropriate measures to protect Canadian interests after consulting with provincial governments.

Freed from unnecessary government controls, the oil industry can find new reserves of conventional oil, and develop and upgrade the vast resources of heavy crude oil and bitumen. But this cannot be done at controlled prices. And, it cannot be done by governments restricting market access.

With deregulation the NEB will no longer determine the prices of exported oil. Nor will the NEB require prior approval of light crude and oil product export contracts of less than one year and heavy crude oil export contracts of less than two years. However, the board will continue to monitor these exports and report to the Minister of Energy, Mines and Resources on a monthly basis. Exports of a longer duration will not be possible without government approval. The government will continue to monitor volumes and prices to ensure its awareness of events in the marketplace that could pose warning signs to the Canadian economy.

The above measures on oil exports and domestic pricing will mean several significant changes to the petroleum industry in Canada. These are summarized in the attached table.

Old Administered System

Market System

Petroleum Compensation Charge (PCC)

- All domestic and foreign crude oil and imported petroleum products consumed in Canada bore the PCC, currently at \$41.14 per cubic metre.
- Exports of products were eligible for rebates of the PCC.

- No longer imposed.

Petroleum Levy Offset Program (PLOP) for Petrochemical Producers

- The last increase in the Petroleum Compensation Charge was \$17.50 per cubic metre on November 10, 1984 (as announced in the Economic Statement of November 8, 1984).
- PLOP provides an offset against that increase for certain primary petrochemical products.

- Program ends with elimination of PCC.

Primary Industry Levy Offset Program

- As part of the Fuel Tax Rebate Program those in primary industries (farmers, fishermen, and those involved in logging, mining, hunting and trapping) are eligible for a 1.3¢ per litre PCC rebate.

- The 1.3¢ per litre PCC rebate ends with elimination of PCC.
- The 3.0¢ per litre Federal Sales Tax rebate continues.

Controlled Prices on Conventional Old Oil (COOP)

- The price of oil discovered prior to 1974 is controlled by agreement with the provinces at below world levels.
- About 45 per cent of domestic oil is affected.

- Producers sell their oil at market price.
- Refiners pay market price.
- Government does not set the price.

New Oil Reference Price (NORP) for Synthetic Crude Oil

- Producers of synthetic crude eligible for the international price and receive compensation based on a complex calculation similar to that employed for conventional new oil.

- Price set by marketplace, not by government.
- No compensation required.

Old Administered System

Market System

New Oil Reference Price (NORP) for Conventional Crude Oil

- Producers of qualifying new oil in five producing provinces and the territories are paid compensation for difference between international price and controlled domestic price.
- Compensation based on 81 different NORP prices calculated from prices of 34 foreign crudes at Montreal, subject to detailed federal-provincial administrative manual.

- Producers sell their oil at market price.
- Refiners pay market price.
- Government does not set the price or pay any compensation.

Oil Import Compensation Program (OICP)

- Payments made to oil importers based on the difference between the average cost of foreign and equivalent-quality Canadian crude oil at Montreal.
- To protect markets for Canadian production, access to international market was restricted.

- No import compensation necessary.
- No restrictions on imports.

Domestic Transfer Compensation

- Compensation granted for costs of moving domestic crude to refineries east of Montreal.

- Such movements will be on a commercial basis.

Crude Oil Export Charge

- A charge is recommended by the National Energy Board on all exported crude oil and petroleum products. The level is equal to the difference between the selling price and the lower Canadian-controlled price.
- Export charge revenues on crude oil split 50-50 with the province of production.
- The revenues on products accrued entirely to the federal government.

- Export charge eliminated.

Old Administered System

Market System

Crude Oil Export Licences

- NEB licence required for all crude oil exports and for most petroleum products.

- Monitoring of export will continue but prior approval will not be required for exports of light crude oil and petroleum products less than one year, and heavy crude less than two years, in duration.

Import Licences

- NEB licences required on imports of heavy fuel oil.

- No licences required.
-

APPENDIX 3

Agreement on Natural Gas Markets and Prices (November 1, 1985)

COMMUNIQUE

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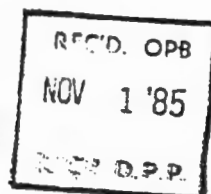
35/162
October 31, 1985

NATURAL GAS AGREEMENT OUTLINED



Energy, Mines and
Resources Canada

Energie, Mines et
Ressources Canada



OTTAWA — Canada will move from government-administered prices to a market-oriented regime for both domestic and exported natural gas during the next year with immediate benefits to both consumers and producers, the Honourable Pat Carney, Minister of Energy, Mines and Resources, announced today.

An agreement between the federal government and the gas-producing provinces of Alberta, British Columbia and Saskatchewan, which takes effect November 1, 1985, will mean lower prices for consumers and improved market access for producers.

During a one-year transition period the benchmark Alberta Border and Toronto Wholesale Prices are frozen at existing levels.

Residential consumers will pay lower gas costs this winter than last as they benefit by at least 8 cents per gigajoule from the removal of the Canadian Ownership Special Charge resulting from the Western Accord.

Domestic consumers will not pay the TransCanada PipeLines (TCPL) toll increases recently approved by the National Energy Board (NEB) totalling approximately 11 cents per gigajoule and due to be applied November 1. Under the agreement, the toll increases are to be absorbed by producers. In return, producers will have improved access to export markets.

During the transition year, customers whose contracts expire will be free to negotiate new contracts directly with producers at competitive prices provided a transportation toll service is in place. About 60 per cent of industrial contracts will expire during the year and will be able to benefit from this provision. All customers will be able to renegotiate existing contracts during the transition period providing all parties agree.

"By November 1, 1986, all natural gas buyers and sellers in Canada will be released from unnecessary government intervention in their market place," Miss Carney said. "In the transition period, the ability to voluntarily renegotiate contracts and to

- more -

Canada

increase exports will create and preserve jobs. The agreement is an excellent example of balanced regional compromise in the national interest."

The agreement provides for:

- direct sales at prices and terms freely negotiated between producers and distributors or large industrial users, provided transportation service is made available by consumer provinces' regulatory bodies;
- competitive marketing programs under which distributors will be permitted to offer discounts to meet competition;
- export floor prices based on regional price tests rather than a single Toronto price;
- an NEB review of TCPL's services in light of the new pricing system to ensure equitable access to this system;
- removal of volume restrictions on short-term natural gas exports;
- a comprehensive review of the role and operations of interprovincial and international pipelines.

Equitable access will be provided for British Columbia gas through the Alberta pipeline system to new markets in both the U.S. and eastern Canada.

The agreement anticipates that consuming provinces, through their regulatory bodies, will ensure provisions of the agreement flow through to consumers so that they can take advantage of opportunities for market pricing. ✓

The agreement also anticipates that NEB and provincial regulatory agency reviews of surplus tests for natural gas exports will result in significantly freer access to domestic and export markets. ✓

Although producing provinces retain the right to control removal of natural gas from their provinces, they have agreed not to use this power to frustrate the intent of the agreement on natural gas.

"The agreement completes the process begun in the Western Accord of replacing prices set by government with prices set by the market," Miss Carney said. "All Canadians will benefit."

For further information, please contact: Andrew Hutton
Press Secretary to the Minister
(613) 993-5252

BACKGROUNDER

IMPORTANCE OF NATURAL GAS

Natural gas is one of Canada's great energy strengths. Canada is fortunate to have this fuel in abundant supply. Already approximately 3 million householders enjoy the advantages of natural gas heating. Natural gas is also a source of energy and a raw material for our major industries across the country and is developing as a transportation fuel of the future. It is also a major source of export earnings contributing \$4 billion to Canada's trade surplus, and an important contributor to economic activity.

HISTORY

Domestic Gas Pricing

Prior to November 1975, the price for natural gas in interprovincial trade was determined by negotiation between producers and TransCanada PipeLines (TCPL). TCPL was the sole purchaser and carrier of gas into interprovincial markets east of Alberta. It sold its gas to provincial distributors at the city-gate at negotiated prices. The transportation component of the price has been regulated by the National Energy Board.

The passing of the Petroleum Administration Act in 1975 provided for the federal prescription of city-gate prices and led to the negotiation of the first Canada/Alberta Gas Pricing Agreement effective November 1, 1975. Since 1975, the prices of Alberta natural gas sold in interprovincial trade have been administered under agreements between the governments of Canada and Alberta. During this period, natural gas prices were linked to crude oil prices.

Export Gas Pricing

Since 1975 export prices were set by the federal government. On November 1, 1984, the Government of Canada revised its export pricing policy to allow Canadian companies to export gas to U.S. buyers at negotiated prices. The policy also made provisions for short-term exports of natural gas by order subject to volume limitations.

In response to the policy changes of November 1984, Canada's natural gas exports increased by more than 23 per cent from the previous year. Export revenues from natural gas have been maintained despite severe downward pressure on prices in the United States. Export revenues for the period from November 1, 1984 to September 30, 1985 were \$Can 3 696 million compared with \$Can 3 674 million in the same period last year.

The Western Accord

Among its other elements, the Western Accord of March 28, 1985 committed Canada and the producing provinces to develop by November 1, 1985 a new market-responsive pricing system for domestic pricing of natural gas in

interprovincial trade. To develop this mechanism, a task force of senior officials from the federal government and the producing provinces was struck to work with all interested parties, including consuming provinces and industry.

A natural gas "summit group", including representatives of the Canadian Gas Association, the Canadian Petroleum Association, the Independent Petroleum Association of Canada and the Ontario Natural Gas Association, provided a forum for dialogue among organizations from the production, transmission and distribution sectors of the natural gas industry. The issues identified by the Summit have been used as a basis for discussion between the federal government and the producing provinces.

OBJECTIVES OF AGREEMENT

The agreement among participating governments is intended to create the conditions for a new market-responsive pricing system consistent with the regulated character of the transmission and distribution sectors of the gas industry. It signals an end to government administered prices and a return to market forces characterized by choices for buyers and sellers. While the agreement provides for a transition period of one year, access will be immediately enhanced for Canadian buyers to natural gas supplies and for Canadian producers to natural gas markets.

The new regime will provide the framework for negotiated prices between buyers and sellers. Prices will be affected by conditions in the marketplace; both supply and demand will influence the price. Competition will be fostered which should increase the industry's ability to react quickly to changing conditions.

TERMS OF AGREEMENT

Interim Prices

For a transition period, from November 1, 1985 to July 31, 1986, the governments have agreed to freeze the Alberta Border Price (ABP) of gas for existing contracts at \$2.79 per gigajoule (GJ) (\$2.9¢ per Mcf). The governments have further agreed to freeze the Toronto Wholesale Price (TWP) at its current level of \$3.79/GJ.

Consumers will not be asked to absorb the increase of 11.2¢/GJ in TCPL tolls due to take effect November 1, 1985. A new Transportation Assistance Program (TAP II) will accommodate the TCPL toll increase for all domestic zones and for all domestic TCPL services. The cost of the program will be funded from revenues provided by the Government of Alberta.

As a result of the TAP II initiative by governments and of the June 1, 1985 elimination of the Canadian Ownership Special Charge (COSC), which was effectively 8 cents per gigajoule. Canadians will enjoy lower natural gas costs this winter.

Direct Sales and Competitive Marketing Programs

After November 1, 1985, gas customers will be able to enter into supply contracts with gas producers (direct sales) at negotiated prices for new contracts or as their existing contracts expire.

Such arrangements will be possible as soon as regulatory agencies provide for availability of access to the distribution systems (contract carriage). As well, consumers who choose to renegotiate their contracts during the transition period may do so with the agreement of producers supplying the gas.

Provisions will be made for competitive marketing programs (CMPs), beginning November 1, whereby producers selling system gas can offer discounts to meet competitive situations in the marketplace.

Canada, Alberta and the consuming provinces will exclude the volume associated with direct sales and CMPs from eligibility for the Natural Gas Market Incentive Program. This program is due to expire April 30, 1986. However, direct sales and CMPs volumes will qualify to earn the export flowback revenue, until this system expires November 1, 1986.

New Sales to Distributors

Effectively, immediately, and subject to the provision of contract carriage, a distributor may enter into direct purchase arrangements at negotiated prices for volumes of natural gas which are incremental to the quantity of gas committed under existing or renegotiated contracts.

Existing Sales to Distributors (System Gas)

Beginning November 1, 1986, the prices of all natural gas in interprovincial trade will be determined by negotiation between buyers and sellers.

* Parties to existing contracts may in good faith and on a voluntary basis negotiate for both price and volume provisions.

Exports

Export Pricing Policy

To provide for more open access to export markets by Canadian producers, Canada will amend its export pricing policy with respect to the relationship between domestic and export prices for natural gas. The Toronto Wholesale Price floor for all exports will be replaced with a regional reference price criterion. This will ensure that any Canadian gas sold to the United States will not be priced lower than gas sold to Canadians for similar types of service in the area nearest the export point.

Export Market Access

To provide more open access by Canadian producers to export markets, Canada will amend its regulations to allow the export of natural gas by order without volume limitation for terms not exceeding 24 months.

Export Surplus Tests

The participating governments anticipate that the reviews of surplus tests currently underway by the NEB and soon to be initiated in provincial jurisdictions will result in significantly freer access for producers to domestic and export markets.

Gas Imports

There is provision for the import of natural gas in the National Energy Board Act and Regulations.

GOVERNMENT COMMITMENTS

To facilitate direct sales and CMPs the governments of Canada and Alberta will amend price legislation and regulations affecting natural gas trade in the transition period. Additionally, Alberta agrees to amend its Arbitration Act and review its removal permit process to ensure these are consistent with the overall intent of the Agreement. Canada will undertake to ensure that direct sales have equitable and open access to TCPL transmission facilities.

The Government of Canada will ask the NEB to review the pertinent issues regarding access to TCPL's transmission facilities.

PIPELINE REVIEW

The Western Accord governments agreed to initiate a comprehensive review of the role and the operation of pipelines engaged in the buying, selling and transmission of gas in interprovincial and international markets.

GLOSSARY

Alberta Arbitration Act: Provincial legislation providing the terms and conditions for contract arbitration, including pricing provisions, in gas purchase contracts.

* Alberta Border Price (ABP): The price, expressed in dollars per gigajoule (GJ), at which natural gas leaves the province of Alberta for domestic markets.

Canadian Ownership Special Charge (COSC): A federal levy imposed on natural gas and oil to help defray the costs of Canadianization of the energy industry.

* City-Gate Price: Price distributors pay for TCPL's gas (Alberta Border Price) plus the relevant transportation tolls.

* Competitive Marketing Programs (CMP): Mechanism which allows distributors currently selling system gas to offer discounts on certain volumes to meet competition in the marketplace.

* Commodity Charge: The variable component of pipeline transportation tolls designed to recover the variable costs of delivered gas.

Contract Carriage: Transportation service provided under contract to transport gas not owned by the pipeline company.

* Demand Charge: The fixed component of pipeline transportation tolls designed to recover the fixed costs related to pipeline service.

Direct Sales: Natural gas supply purchase arrangements transacted between producers, including marketers, and end-users at negotiated prices for which pipeline charges must be contracted separately.

Export licence: A licence issued by the National Energy Board for a long-term (in excess of two years) export of gas.

Export order: An order issued by the National Energy Board for short-term (up to two years) export of gas.

Flowback: Revenues received from exports of Alberta-produced gas in excess of those that would have been received for similar sales in Canada.

Gigajoule: A measure of the energy content of a fuel; a typical residential consumer of natural gas might use about 130 gigajoules (GJ) per year for household heating. (One gigajoule equals .95 Mcf.)

Incremental Gas: Demand for gas in addition to that already supplied to a market area or which would be lost under existing supply conditions.

Market Development Incentive Payments (MDIP): Payments made by the Government of Alberta to the Government of Canada created to fund programs designed to facilitate the expansion of domestic gas markets for Alberta-produced gas.

Natural Gas Markets Incentive Program (NGMIP): An incentive plan for Alberta natural gas sold to large-volume users, primarily industrial, in Manitoba, Ontario and Quebec. The program went into effect on May 1, 1984 and will end on April 30, 1986. The plan provides for rebate of up to \$0.35/GJ on eligible volumes.

Regional Reference Price: A criterion by which the National Energy Board will assess export prices at the international border to ensure that domestic consumers do not pay more for Canadian gas than their U.S. neighbours.

Removal Permit/Certificate: A permit granted by a provincial government authorizing the removal from Alberta of natural gas or from the province of production.

Spot Sales: Short-term sale of natural gas generally on a best-efforts and interruptible basis.

Surplus Tests: The criteria established by provincial or federal regulations to determine the quantity of gas which may be surplus to the reasonably foreseeable provincial or Canadian requirements and therefore available for sale in interprovincial and international markets.

Take-Or-Pay (TOP): Gas supply contracts usually contain provisions that gas contracted for, but not taken, will be paid for. Weaker than expected demand for natural gas in the late 1970s and early 1980s led to large payments being made by pipeline companies to producers for gas not taken.

TOPGAS: A banking consortium was formed in 1982 to refinance the take-or-pay payments made by TransCanada PipeLines to producers for \$2.7 billion dollars of gas. The refinancing is referred to as the TOPGAS loan, and the interest on this loan is paid by TCPL gas producers.

TOPGAS Charges: The interest on the TOPGAS loan is paid by gas producers.

* Toronto Wholesale Price (TWP): The cost of natural gas for resale by distributors in TransCanada PipeLine's (TCPL) eastern delivery zone equal to the sum of the Alberta Border Price and the TCPL transportation toll.

Transportation Assistance Program (TAP): A federal government subsidy program initiated February 1, 1984 to reduce the impact of rising gas transportation tolls.

* T-service: The gas transportation tariff offered by a pipeline company or distributor to transport gas owned by others. See also contract carriage.

Canada

**Agreement on
Natural Gas
Markets and Prices**

AGREEMENT AMONG THE GOVERNMENTS
OF CANADA, ALBERTA, BRITISH COLUMBIA AND SASKATCHEWAN
ON NATURAL GAS MARKETS AND PRICES

INTENT

1. In the Western Accord of March 28, 1985 on Energy Pricing and Taxation, the governments of Canada, Alberta, British Columbia and Saskatchewan agreed that a more flexible and market-oriented pricing regime was required for the domestic pricing of natural gas. The present Agreement is intended to create the conditions for such a regime, including an orderly transition which is fair to consumers and producers and which will enhance the possibilities for price and other terms to be freely negotiated between buyers and sellers. This will have favourable effects on investment, employment and trade and will provide energy security for all Canadians.

PRINCIPLES

2. Effective November 1, 1986, the prices of all natural gas in interprovincial trade will be determined by negotiation between buyers and sellers. Access will be immediately enhanced for Canadian buyers to natural gas supplies and for Canadian producers to natural gas markets while at the same time assuring that the reasonably foreseeable requirements of gas for use in Canada are protected.
3. The twelve month period commencing November 1, 1985 is the transition to a fully market sensitive pricing regime. While prices will continue to be prescribed by governments, immediate steps will be taken to enable gas consumers to enter into supply arrangements with gas producers at negotiated prices (direct sales), which prices will then promptly be endorsed by governments in the context of the administered system. After this transition period, purchase and sale of natural gas will be freely negotiated, and prices will no longer be prescribed.
4. It is the intention of the parties to the Agreement to foster a competitive market for natural gas in Canada, consistent with the regulated character of the transmission and distribution sectors of the gas industry. In this regard the governments commit, without qualification, that once the transition to the new marketing and pricing system is completed, the system will stay in place for the foreseeable future.

DOMESTIC NATURAL GAS SALES

A. Direct Sales and Competitive Market Programs

5. Effective November 1, 1985, consumers may purchase natural gas from producers at negotiated prices, either directly or under buy-sell arrangements with distributors, provided distributor contract carriage arrangements are available in respect of such purchases. This provision is in no sense intended to interfere with provincial jurisdiction in regard to regulation of gas distribution utilities.

6. For the period November 1, 1985 to October 31, 1986 consumers who seek release from existing contractual arrangements with distributors shall be eligible to purchase natural gas from producers at negotiated prices, as described in paragraph 5 above, only where the producers supplying the gas under the existing contractual arrangements have agreed to such release. WT contracts stay
7. To enable the market-responsive pricing system to operate within the intent of this Agreement, the governments request the National Energy Board to review the following concerns:
 - 7 i) whether inappropriate duplication of demand charges will result from possible displacement of one volume of gas by another; and
 - ii) whether the policy regarding the availability of T-Service, as outlined in the Board's latest TransCanada PipeLines toll decision is still appropriate, taking into account, among other things, interested parties' views on the fair and equitable sharing of take-or-pay charges.
8. Effective November 1, 1985, competitive marketing programs (CMP) to meet special market requirements may be negotiated between distributors, shippers and the producers who are providing the natural gas volumes associated with such programs.
9. A consumer purchasing natural gas under a direct sale or a competitive marketing program must waive eligibility for payments under the Natural Gas Market Incentive Program (NGMIP), for those volumes taken under the direct sale or CMP.

B. New Sales to Distributors

10. Effective November 1, 1985, a distributor may under new or renegotiated contracts, purchase natural gas from shippers or directly from producers at negotiated prices. Notwithstanding such an arrangement, prior to November 1, 1986, the distributor shall take the full volumes of gas committed under existing contracts before accepting the delivery of any volumes of gas under a new contract.

C. Existing Sales to Distributors

11. The price of gas delivered under existing shipper-distributor contracts shall remain at \$2.79804 per gigajoule at the Alberta border for the period November 1, 1985 to October 31, 1986.
12. The National Energy Board has approved for implementation November 1, 1985, an increase in TransCanada PipeLines' (TCPL) transportation tolls. In order to maintain the Alberta Border Price and the Toronto Wholesale Price at their current levels, and to allow TCPL to recover its approved costs for the transportation of natural gas consumed in domestic markets, the Government of Canada agrees to pay an amount equal to the value of revenues foregone over

the period November 1, 1985 to October 31, 1986. These payments will be made under a Transportation Assistance Program financed by an extension of the Market Development Incentive Program (MDIP) to October 31, 1986.

13. Prior to November 1, 1986, negotiations shall commence between distributors, shippers and the producers supplying the gas in question respecting the price to be paid for natural gas delivered under existing contracts. Prices resulting from such negotiations shall come into effect November 1, 1986 and as agreed thereafter. Where contract renegotiation between buyers and sellers, whether of price or volume, takes place in good faith and on a voluntary basis, governments will not obstruct the resulting commercial transactions.
14. In the absence of an Agreement between a shipper and a distributor, or a producer and a shipper, on the price to be paid for gas under existing contracts on November 1, 1986, and thereafter, the price shall be determined through arbitration.
15. With respect to gas produced in Alberta, the Government of Alberta intends to amend the Arbitration Act. The amendment would enable pricing disputes between producers and purchasers to be arbitrated under the act or under alternative arrangements established by contract between the parties. The amendments will ensure that the arbitration of pricing disputes is done in an impartial and equitable manner consistent with the policy of implementing a more market-responsive domestic gas pricing system. Specifically, the Government of Alberta commits to amend Section 17 of the act to permit the arbitrator to take into account all relevant factors required to arrive at a fair decision on the price of the natural gas in question.

Existing
contracts
stay

EXPORT NATURAL GAS SALES

16. The governments anticipate that reviews of surplus tests underway or shortly to be initiated by the National Energy Board and by the appropriate provincial authorities will result in significantly freer access to domestic and export markets and thus will contribute to the achievement of the market-oriented pricing system contemplated in this Agreement.
17. Effective November 1, 1985, the Government of Canada will take appropriate steps to amend its existing policy on short term export sales of natural gas. Specifically:
 - i) the "incrementality test" shall be eliminated;
 - ii) the "competing fuels test" shall be eliminated; and
 - iii) the National Energy Board VI Regulations, Section 8 shall be amended to allow the export of natural gas by order without volume limitation for terms not exceeding 24 months.
18. Effective November 1, 1985, the Government of Canada will amend its policy in regard to the conditions exporters of natural gas must meet for gas exported under licence. To obtain approval, all licence holders must demonstrate that their negotiated contractual arrangements meet the following criteria:

- i) the price of exported gas must recover its appropriate share of costs incurred;
 - ii) the price of exported natural gas shall not be less than the price charged to Canadians for similar types of service in the area or zone adjacent to the export point;
 - ✓ iii) export contracts must contain provisions which permit adjustments to reflect changing market conditions over the life of the contract;
 - ✓ iv) exporters must demonstrate that export arrangements provide reasonable assurance that volumes contracted will be taken; and
 - v) exporters must demonstrate that producers supplying gas for an export project endorse the terms of the export arrangement and any subsequent revisions thereof.
19. The Government of Alberta agrees that the export flowback system shall continue in its current form, subject to the actions contemplated in paragraph 12, until November 1, 1986, at which time the system will be eliminated.

NATURAL GAS IMPORTS

20. There is provision for the import of natural gas in the National Energy Board Act and Regulations.

GENERAL APPLICATION

21. The Government of Canada has broad responsibilities to ensure that trade among provinces and between Canada and its foreign trading partners is conducted in a manner which will provide benefits for all Canadians. Nothing in this Agreement shall limit Canada's power or its ability to meet its responsibilities in relation to interprovincial and international trade.
22. The governments of Alberta, British Columbia and Saskatchewan have broad responsibilities with respect to the development of their natural resources. Nothing in this Agreement shall limit the producing provinces' powers or their ability to meet their responsibilities in relation to their ownership and management of their natural resources.
23. The producing provinces shall retain their right to condition the removal of natural gas from the province to protect provincial public interest. ✓
Notwithstanding this basic right of ownership, the producing provinces do not intend to use this right to frustrate the intent of this Agreement. Specifically:
- i) Alberta and British Columbia will initiate a review of their respective surplus tests to ensure that the tests will contribute to the achievement of the market-oriented pricing system contemplated in this Agreement.
 - ii) Alberta will review the wording of the Gas Resources Preservation Act, specifically Section 5(3)(c), and as necessary, intends to amend the legislation to ensure that it does not require new sales to be incremental to existing sales prior to November 1, 1986.

iii) Saskatchewan, in order to decrease its reliance on extraprovincial sources of gas, will permit limited quantities of its gas for sale outside the province and for direct sale within the province, as a market incentive to stimulate exploration of conventional resources. So long as Saskatchewan is reliant on extraprovincial gas, the price of gas sold outside the province shall be not less than the price at which gas may be purchased in Saskatchewan.

24. Non-arm's-length sales of natural gas between producers and shippers, between producers and distributors, or between producers and consumers shall be subject to appropriate provincial legislation for purposes of determining and collecting royalty or mineral tax revenues payable to the respective provincial Crown.
25. In conjunction with the transition to a more flexible and market-oriented pricing regime for domestic natural gas sales, the governments agreed that an early and all-encompassing review of the role and operations of interprovincial and international pipelines engaged in the buying, selling and transmission of gas is in order. Towards this end, the parties agree that the review will be carried out by an impartial panel appointed by the Minister of Energy, Mines and Resources in consultation with the ministers representing the governments of Alberta, British Columbia and Saskatchewan. The review shall be completed no later than June 30, 1986 and a final report submitted to the Minister of Energy, Mines and Resources on or before July 31, 1986. The details of panel membership, mandate and reporting relationship will be made public separately. ✓

CONSUMING PROVINCES

26. It is anticipated that the governments of the consuming provinces who are not signatories to this Agreement will make changes to ensure the effectiveness of the market-sensitive gas pricing regime, including legislative changes and the provision of direction to provincial agencies to provide consumers with alternative sources of supply through the availability of transportation services on distribution systems, and to provide distributors with greater flexibility in determining prices for gas sold by them.

MONITORING

27. To ensure that the intent and objectives of this Agreement are achieved, a senior official representing each of the parties to this Agreement shall be appointed to monitor the implementation of the provisions contained herein and, among other things, the degree to which regulatory processes have resulted in significantly freer market access. These officials shall report their findings on a quarterly basis to their respective ministers. ✓
28. The parties to this Agreement intend to enact expeditiously the appropriate legislative and regulatory changes necessary to implement the market-oriented pricing policy contemplated herein.

Dated on this 31st day of October, 1985.

For the Government of Canada

For the Government of Alberta

Pat Carney
Minister of Energy, Mines and Resources

John Zaozirny
Minister of Energy and Natural
Resources

For the Government of British Columbia

For the Government of Saskatchewan

Stephen Rogers
Minister of Energy, Mines and Resources

Paul Schoenhals
Minister of Energy and Mines

APPENDIX 4

DEREGULATION QUESTIONNAIRE WESTCOAST (DUKE) ENERGY

DEREGULATION QUESTIONNAIRE
WESTCOAST (DUKE) ENERGY

In the last 15+ years, the natural gas industry has undergone a number of policy changes with respect to how the industry is regulated. The changes to these regulations have been applied to some portions of the industry (gathering and processing) and not others (transmission and distribution). What I would like to determine specifically is the effect that these regulatory changes have had on Westcoast (Duke) Energy, particularly as they relate to the transmission sector of the industry.

I would ultimately like to provide information on the pros and cons of deregulation from one company's perspective, provide an "applied" example of the effects of deregulation, and identify whether or not the effects of deregulation on a company are a function of scale (the size of the company). Toward that end I have developed the following questions:

1. What are the pros and cons of deregulation of the natural gas industry as you see them?

Pros:

Cons:

2. How have these regulatory changes affected the gathering and processing sectors of the company? Do you think this is a positive or a negative change?
3. Have the regulatory changes to a portion of the industry (gathering and processing sectors) had any effect on the transmission side of the business as it relates to Westcoast (Duke) Energy?
4. The Western Accord was the government's first step toward deregulating the energy industry. It was designed to revitalize the Canadian energy industry by deregulating the crude oil pricing and marketing, making the natural gas industry more market-oriented, and eliminating a number of federal oil and gas taxes or charges including the Petroleum and Gas Revenue Tax, the Petroleum Compensation Charge, and the Canadian Ownership Special Charge. Did the Western Accord have any affect on Westcoast Energy?
 - a. Were there any changes to the marketing of natural gas as a result of the Accord?

- b. Did the elimination of the gas taxes and charges increase Westcoast Energy revenues or decrease prices?
 - c. The elimination of the Petroleum and Gas Revenue Tax (PGRT) was supposed to promote “large-scale reinvestment in Canada”. The decade following the Western Accord (1985 – 1995) was one of large-scale diversification and expansion for Westcoast Energy. Did this have anything to do with the elimination of the PGRT?
5. What affect did the Agreement on Natural Gas Markets and Prices have on Westcoast? For example, one of the goals of the Agreement was to improve market access for producers, particularly the export markets. Was this the case? Were there any other benefits or drawbacks of this Agreement for Westcoast Energy?
6. What subsequent regulatory changes (e.g. Incentive Settlements, Framework for Light-Handed Regulation) affected Westcoast and how?
7. There is currently a debate within the natural gas industry as to whether or not deregulation should be applied to the transmission and distribution sectors. What do you feel would be the consequences of this policy change and how would that affect Westcoast (Duke) Energy?