

GOVERNMENT REGULATION OF THE CANADIAN PETROLEUM INDUSTRY: CAUSES, EFFECTS, AND THE CHOICE OF THE REGULATORY INSTRUMENT

Charles R. Spector

Volume 15, Number 1, 1984

URI: <https://id.erudit.org/iderudit/1109388ar>

DOI: <https://doi.org/10.17118/11143/19726>

[See table of contents](#)

Publisher(s)

Revue de Droit de l'Université de Sherbrooke

ISSN

0317-9656 (print)

2561-7087 (digital)

[Explore this journal](#)

Cite this article

Spector, C. R. (1984). GOVERNMENT REGULATION OF THE CANADIAN PETROLEUM INDUSTRY: CAUSES, EFFECTS, AND THE CHOICE OF THE REGULATORY INSTRUMENT. *Revue de droit de l'Université de Sherbrooke*, 15(1), 199–232. <https://doi.org/10.17118/11143/19726>

Article abstract

Dans cet article, l'auteur examine les politiques énergétiques du gouvernement fédéral ainsi que ses effets sur l'industrie pétrolière. Débutant avec un bref historique de l'industrie pétrolière canadienne et les tentatives initiales du gouvernement d'influencer le développement de cette dernière, l'auteur présente ensuite l'état actuel de la réglementation, telle que contenue dans le Programme Énergétique National (P.E.N.).

L'impact d'une réglementation aussi vaste que celle adoptée en vertu du P.E.N. se fait sentir à plusieurs niveaux et, plus particulièrement, sur le prix des produits pétroliers sur la *Canadianization* de l'industrie et sur la conservation de l'énergie. Dans une autre partie, l'auteur examine les effets cachés du Programme et les possibilités de conflits entre les politiques énergétiques et les autres objectifs gouvernementaux. Enfin, on discute de la sagesse d'avoir formulé une politique fixe pour réglementer une industrie aussi volatile et changeante que l'industrie pétrolière est discutée.

Partout dans l'article référence est faite aux différentes méthodes de réglementation disponibles au gouvernement et au fait que le P.E.N. utilise pratiquement tous les instruments d'intervention imaginables. La dernière partie du texte est consacrée à l'étude de la question du choix d'un instrument d'intervention. Pourquoi un instrument est choisi parmi tous les autres ? Les différentes théories de réglementation sont étudiées pour conclure qu'en choisissant leurs instruments d'intervention la notion du *vote maximization* est d'importance primordiale. La plupart des politiciens ne sont pas motivés par des raisons économiques mais plutôt par des considérations politiques. C'est ainsi que le gouvernement a décidé de procéder à la formation d'une entreprise publique, Pétro-Canada. Le texte se termine en discutant les raisons d'être de cette corporation de la Couronne, ainsi que de ses avantages et désavantages.

GOVERNMENT REGULATION OF THE CANADIAN PETROLEUM INDUSTRY: CAUSES, EFFECTS, AND THE CHOICE OF THE REGULATORY INSTRUMENT*

par Charles R. SPECTOR**

Dans cet article, l'auteur examine les politiques énergétiques du gouvernement fédéral ainsi que ses effets sur l'industrie pétrolière. Débutant avec un bref historique de l'industrie pétrolière canadienne et les tentatives initiales du gouvernement d'influencer le développement de cette dernière, l'auteur présente ensuite l'état actuel de la réglementation, telle que contenue dans le Programme Énergétique National (P.E.N.).

L'impact d'une réglementation aussi vaste que celle adoptée en vertu du P.E.N. se fait sentir à plusieurs niveaux et, plus particulièrement, sur le prix des produits pétroliers sur la Canadianization de l'industrie et sur la conservation de l'énergie. Dans une autre partie, l'auteur examine les effets cachés du Programme et les possibilités de conflits entre les politiques énergétiques et les autres objectifs gouvernementaux. Enfin, on discute de la sagesse d'avoir formulé une politique fixe pour réglementer une industrie aussi volatile et changeante que l'industrie pétrolière est discutée.

Partout dans l'article référence est faite aux différentes méthodes de réglementation disponibles au gouvernement et au fait que le P.E.N. utilise pratiquement tous les instruments d'intervention imaginables. La dernière partie du texte est consacrée à l'étude de la question du choix d'un instrument d'intervention. Pourquoi un instrument est choisi parmi tous les autres? Les différentes théories de réglementation sont étudiées pour conclure qu'en choisissant leurs instruments d'intervention la notion du vote maximization est d'importance primordiale. La plupart des politiciens ne sont pas

* Ce texte a été présenté dans le cadre du Prix Chénier Picard de la Faculté de droit de l'Université de Sherbrooke et a mérité le premier prix.

** Étudiant, Faculté de droit, Université de Sherbrooke. L'auteur veut remercier le professeur Suzanne Comtois de la Faculté de droit de l'Université de Sherbrooke pour son aide et direction dans la préparation de cet article.

motivés par des raisons économiques mais plutôt par des considérations politiques. C'est ainsi que le gouvernement a décidé de procéder à la formation d'une entreprise publique, Pétro-Canada. Le texte se termine en discutant les raisons d'être de cette corporation de la Couronne, ainsi que de ses avantages et désavantages.

SUMMARY

INTRODUCTION	202
PART I — HISTORICAL OVERVIEW	202
A) Development of the Industry	203
B) Government Policy	205
C) Constitutional Issue	210
PART II — GOVERNMENT REGULATION OF THE PETROLEUM INDUSTRY	211
A) Legislative Measures	211
B) Fiscal Measures	213
PART III — IMPACT	215
A) Energy Policy and Its Effects on Price	216
B) Energy Policy and Its Effects on Canadianization	218
C) Energy Policy and Its Effects on Conservation	218
PART IV — DEFECTS IN THE PROGRAM	220
A) Conflict of Objectives	220
B) Unreliability of Data	221
PART V — THE CHOICE OF THE REGULATORY INSTRUMENT	223
A) The Calculus of Choice	223
B) The Crown Corporation	227
CONCLUSION	232

INTRODUCTION

*"The meek shall inherit the world,
but not its mineral resources."*

J. Paul Getty

This paper will examine the effects of government regulation on the Canadian Petroleum Industry. It will not only discuss the economic impact of various regulations but will examine the more difficult question of why. Why government intervenes and why certain regulatory policies are chosen over others.

In particular, it will analyze the impact of the 1980 National Energy Program, the choice of regulatory instruments and the economic consequences which have resulted.

Today, in 1984, we are in a good position to study the effects of this program. What it has meant to the average Canadian, what has been its effect on industry in general and how it has affected the oil industry in particular, as well as related energy producing sectors such as gas, oil, and nuclear energy.

Finally, this paper will examine the objectives of Canada's energy policy to determine if these objectives are attainable, while looking at both the expected and unexpected side effects.

PART I — HISTORICAL OVERVIEW

By the summer of 1980 the industrialized nations of the Western World were faced with what is called the second oil price shock.¹ The first shock had come in 1973-1974 following the Arab-Israeli conflict when Saudi Arabia called for an embargo of all petroleum products to those countries supporting Israel, namely the United States and the Netherlands.² This policy was soon followed by other members of O.P.E.C. and extended to other Western World Nations with the ensuing result that by February 1974 oil exports to the U.S. fell by 98%.³

1. R. STOBOUGH and D. YERGIN, editors, *Energy Future*, Ballantine Books, New York, 1979, p. 4.

2. A. SAMPSON, *The Seven Sisters*, Bantam Books, New York, 1976, p. 32.

3. *Id.*, 313.

The result was panic among both the dependant nations and the major oil companies who were thought to be in control of the supply and price of oil. The price for a barrel of crude oil, which had remained almost unchanged throughout the 1960's and early 1970's went from \$2.20/barrel in September 1973, to \$11.40/barrel by January of 1974.⁴

The second shock came in 1979 as a result of the Iranian Crisis. From January 1979 to January 1980, the price of crude oil went from \$13.30/barrel to over \$26.00/barrel and in October of 1981 reached an all time high of \$34.00/barrel.⁵

It is within this context that the National Energy Program (N.E.P.) must be looked at. It was undoubtedly the turmoil that resulted from these price increases and the insecurity of future supplies that prompted the federal government to adopt wide interventionist policies.⁶

Although the N.E.P. is more ambitious than any previous government program, it also represents a continuation of many of the government policies which had already been in place. In order to examine these policies, a brief historical look at the Canadian oil industry is necessary.

A) DEVELOPMENT OF THE INDUSTRY

In 1854 in a small field in north western Pennsylvania, crude oil was discovered. It rapidly replaced kerosene, coal, and wood as the major energy source in the United States.⁷ Most of the major problems of the oil industry were already evident in the first few years of existence; the cycle of shortage and glut, the hectic oscillation of prices, the battles between producers and distributors, and above all, the question: who should control it?⁸

From the beginning, the production and distribution of oil was an exclusively American business and one giant, Standard Oil, under

4. *Petroleum Marketers Handbook*, 1983, compiled by the Editors of Oil Week, Petroleum Publication Inc., New Jersey, 1983, p. 32.

5. *Ibid.*

6. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *The National Energy Program*, Ottawa, 1980, p. 6 (ci-après abrégé N.E.P.).

7. SAMPSON, *op. cit.*, note 2, 24.

8. *Id.*, 21.

the control of John D. Rockefeller, came to dominate the industry.⁹ During the early years of the 20th century government regulation of any industry was limited, however, the Sherman Anti-Trust Act did succeed in 1911 in breaking up Standard Oil into thirty-eight component parts.¹⁰

After World War I, when the demand for oil increased, several of the larger American companies (Exxon, Gulf, Texaco, Mobil, Socal) along with one Dutch company (Shell Oil) and one British company (BP) began to explore for new sources of oil.¹¹ These intergrated companies grew to dominate exploration, development, transportation, refining and distribution in such a way that a highly concentrated oligopoly was created where by the seven major oil companies controlled 70% of world oil production in 1972.¹²

Oil was not discovered in Canada until 1947¹³ and with their refining and distribution network already in place, the majors soon came to dominate production of Canadian crude as well. Statistics show that between 1978-1980 the seven majors were producing 39% of Canada's crude oil and natural gas,¹⁴ had 64% of Canada's refining capacity¹⁵ and controlled 58% of the retail gasoline outlets in the country.¹⁶

The monopolistic practices of the major oil companies have been well documented in a study commissioned by the Combines Investigation Act.¹⁷ Among its conclusions, were recommendations for more government legislation designed to protect the consumer by increasing competition within the industry and the importance of a larger share of control by Canadian companies including Petro-Canada.¹⁸

9. *Id.*, 30.

10. *Ibid.*

11. *Id.*, 40.

12. *Id.*, 241.

13. P. BERTRAND, *The State of Competition in the Canadian Petroleum Industry*, Minister of Supply and Services Canada, Hull, 1981.

14. *Id.*, 29.

15. *Id.*, 35.

16. *Id.*, 41.

17. *Ibid.*

18. *Id.*, 1-10.

B) GOVERNMENT POLICY

*"There is nothing quite so rare
as a shrinking government."*

George Bernard Shaw

Government intervention in the oil industry can be broken into several distinct periods. In general, government policy has been shaped by external economic forces while the decisions taken have been based on political considerations. This conforms to the ideas expressed in a recent Economic Council of Canada Report which noted the importance of the political factor. "In determining simultaneously both objectives and instruments, politicians will be guided by the calculus of vote maximization."¹⁹

It is with this notion in mind that the federal government energy policies must be examined.

Until 1960, government assumed a very small role in regulating the oil industry. It was a free market system and the selling price of Alberta's domestically produced oil reflected changes in the world crude oil prices.²⁰ Alberta oil was consumed domestically or exported to the U.S. based strictly on price consideration. However, the glut of oil in the late 1950's led to a drop of the world price of oil, and in order to protect the infant Alberta industry, the Canadian Government adopted the National Oil Policy (N.O.P.) in 1960.²¹ This policy reserved all markets west of the Ottawa Valley for Canadian produced oil, whether or not the price was competitive with that of imported oil.²²

The policy, which remained in force until 1973, had widespread effects. The Alberta oil industry grew steadily with its reserved markets although Ontario refiners payed \$0.27/barrel more than what importers were paying in Montreal.²³ East of Ottawa line, imported oil was a free market. Anybody who could afford to land oil in Montreal could sell it at whatever price the market would bear. Since the oil could be in the form of either crude or refined oil

19. M. TREBILCOCK ET AL., *The Choice of Regulatory Instrument*, Economic Council of Canada, Ottawa, 1983, p. 27.

20. C. WATKINS and M. WALKER, "Canadian Oil and Gas Pricing", in *Oil in the Seventies, Essays on Energy Policy*, The Fraser Institute, Vancouver, 1977, p. 98.

21. *Ibid.*

22. *Ibid.*

23. *Ibid.*

(usually in the form of heating oil or gasoline) terminal distributors developed, who, while lacking refining capabilities, imported the refined product to be sold directly to the independent fuel oil dealer or gasoline station. This provided a desirable competitive marketplace free from the monopolistic stranglehold of the majors.²⁴

By 1970 crude oil production in the U.S. peaked and the U.S. began to look north to ensure a steady, inexpensive supply of oil.²⁵ Exports to the U.S. jumped by 63% between 1970-1973 and the Government of Canada, concerned that the rapid growth in export demands might deprive Canadian refineries of their crude oil supplies, imposed crude export controls in March 1973.²⁶ The N.O.P. had run its course as a reserved market was no longer necessary, however, as a side effect the policy left the East totally dependant on the imported oil.²⁷

The 1973-1974 embargo and the subsequent O.P.E.C. price increases forced the Canadian Government to extend its export controls and to adopt the Import Compensation Program in order to keep a uniform price throughout Canada.²⁸ These measures were largely stop-gap, designed to cushion the tremendous price increases; however the program was not without adverse effects. The Import Compensation Program provided higher subsidies for crude oil than it did for the already refined product. This squeezed out the terminal importers and the independent's supply network disappeared, thus re-establishing the majors' control of the market. The legislation, instead of keeping prices down, discouraged competition and ultimately resulted in higher prices.²⁹ To counter monopoly practices in the industry the Federal Government in 1975 enacted the Petroleum Administration Act in order to control some of the oil companies behaviour.³⁰

In the meantime, the Department of Energy, Mines and Resources was examining a more long range strategy for Canadian

24. BERTRAND, *op. cit.*, note 13.

25. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *An Energy Strategy for Canada*, Ottawa, 1976, p. 17.

26. *Ibid.*

27. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *An Energy Policy for Canada: Phase 1*, Ottawa, 1973, p. 13.

28. *Id.*, 18.

29. BERTRAND, *op. cit.*, note 13, 19.

30. *Ibid.*

energy policy. Its report, *An Energy Policy for Canada*³¹ tabled in 1973 strongly advocated the establishment of a National Petroleum Company,³² arguing that it would provide a "window" into the petroleum industry as well as being a symbol of national pride and a stimulus to regional development to certain parts of Canada.³³

Based on these recommendations and following the lead of several other industrialized nations, Britain and Norway³⁴ Petro-Canada was launched in 1976. Since its initial capitalization of \$500 million, Petro-Canada has grown, and now occupies the number four position as a producer of oil and gas in Canada.³⁵

In 1976, the Department of Energy, Mines and Resources published another report called *An Energy Strategy for Canada*.³⁶ As an initial reaction to the oil crisis it stressed the need for self-sufficiency. The report called for:

- a) appropriate energy pricing - the move of domestic oil prices towards international levels.
- b) the need to reduce the average growth rate of energy use in Canada.
- c) increased exploration and development in the frontier regions of Canada.
- d) increased research and development.
- e) increased Canadian content and participation.³⁷

By the late 1970's, it became increasingly clear that government policies, mostly in the form of incentives and taxation, were having little impact on curing the market ills of the petroleum industry. In order to encourage exploration and development of new sources of oil and gas, the Income Tax Act permitted tax shelters in the form of large depletion allowances.³⁸ It had been hoped that this would free capital necessary for exploration and development, however, while oil and gas revenues in Canada went from \$1.2 billion in 1970 to \$11.1 billion in 1979, the volume of production increased by only

31. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 27.

32. *Id.*, 179-193.

33. *Id.*, 18.

34. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 21.

35. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *The National Energy Program*, Update 1982, Ottawa, 1982, p. 6.

36. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 25.

37. *Id.*, 126-146.

38. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 12.

30%.³⁹ Much of this increase in revenues can be attributed to higher prices due to the steady rise in world oil prices. The higher prices resulted in windfall profits for the oil companies and huge economic rents as there was a sharp appreciation in the capital value of established reserves.⁴⁰ The effect of these high prices was a transfer of wealth from consumers to producers and since most of these producers are foreign owned the wealth was being transferred away from Canadians.⁴¹

In addition, *The Report on the State of Competition in the Canadian Petroleum Industry*,⁴² concluded that through the use of high transfer payments Canadians were paying inflated prices for petroleum products and much of the revenue earned by the industry was being transferred off-shore, untaxed. The major oil companies, because of their monopoly position, were able to charge their Canadian subsidiaries unrealistic, or higher than the world market prices for oil. These costs were then passed on to the Canadian consumer while the price paid was leaving the country untaxed.⁴³

The 1980 Budget speech recognized that the tax incentives program was doing little to achieve the government's objective of greater Canadian control of the industry.

"The depletion allowances in the Income Tax Act for oil and gas and development activities have primarily benefitted large established corporations which are for the most part foreign owned or controlled. They have been of little use to the smaller Canadian owned corporations which do not have sufficient income to benefit from tax incentives."⁴⁴

By 1979-1980 the world's supply of oil was once again threatened and the price of oil sky-rocketed. Although Canada had been a net exporter of energy since the early 1970's there was still a heavy dependance on imported oil, however, unlike many of its counterparts a shift away from oil to other energy sources could be achieved with relative ease.⁴⁵

39. *Id.*, 17.

40. *Ibid.*

41. *Ibid.*

42. BERTRAND, *op. cit.*, note 13, 64-65.

43. *Id.*, 65.

44. MINISTER OF FINANCE, *The 1980 Budget*, Ottawa, 1980.

45. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 8.

The National Energy Program was designed to cure the problems that existed in the petroleum industry as well as provide a comprehensive energy program for all of Canada.

"It was founded on three basic principles: security of supply and ultimate independence from the world oil market; opportunity for all Canadians to participate in the energy industry, particularly oil and gas, and to share in the benefits of its expansion; and fairness, with a pricing and revenue - sharing regime which recognizes the needs and rights of all Canadians."⁴⁶

The program called for slow but steady rise in the price of domestic oil to a ceiling of 85% of world prices.⁴⁷ It was hoped that higher prices would encourage new exploration and development while calling attention to the importance of and need for energy conservation. The tax system was to be overhauled as depletion allowances were to be phased out and replaced by an incentive system. The biggest incentives were to go to those firms who were the most aggressive with new exploration, especially on frontier lands.⁴⁸ Through the Petroleum Incentives Program, great advantages were to be provided to Canadian owned or Canadian controlled corporations.⁴⁹ Priority for leasing and drilling permits would also be a function of Canadian ownership, especially in lands designated as belonging to the federal government.

Finally, the program promoted energy conservation and the switch away from oil. Grants of up to \$800.00 were provided for residential conversions off oil.⁵⁰ Grants to improve insulation were continued and money was also provided to allow refineries to upgrade their efficiency.⁵¹

Since 1980, the N.E.P. has remained the guiding force for Canada's energy policy. Some modifications have been made, as the program was not designed to be a static of set prices, taxes, or initiatives.⁵² The sharp drop in the world demand for oil has resulted in the delay of some of the government's price schedule increases, and has also resulted in the cancellation of several major exploration

46. MINISTER OF FINANCE, *op. cit.*, note 44, 6.

47. *Id.*, 7.

48. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 38.

49. *Id.*, 39.

50. *Id.*, 56.

51. *Id.*, 63.

52. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 3.

projects.⁵³ Other issues have been dealt with on a rather ad hoc basis as the government has tried to make its energy program compatible with some of its other political objectives.

In its most recent report⁵⁴ the Minister of Energy notes the progress that has been made towards the objectives of the National Energy Program, and would appear determined in maintaining the course that was set in 1980.

C) CONSTITUTIONAL ISSUE

Although much controversy has been raised on the subject, the constitutional issue regarding oil and gas is fairly easy to summarize. The British North American Act gave the provinces ownership of natural resources that are on or lie under the ground together with the right to tax them.⁵⁵ This same statute gives the federal government the competence over control and regulation of interprovincial and international trade including setting prices for commodities such as oil and gas moving in interprovincial and international commerce⁵⁶. This split jurisdiction often makes it difficult to reach a consensus on the development of energy resources in a way that it will serve the overall national interest while adequately protecting provincial rights.

Much publicity has been given over the continual disagreement between the provinces and the federal government. Traditionally, disputes have been settled through amicable negotiations between the parties. The N.E.P. calls for a fifty-fifty split in royalty and taxes and, although initially opposed by the provinces, the program has been at least tacitly accepted.⁵⁷ In addition, the Canadian government continues to negotiate with the provinces to establish agreements for off-shore drilling and exploration so that the provinces can share in whatever benefits are reaped.⁵⁸

53. *Id.*, 2.

54. *Id.*, 5.

55. B. WILLSON, *The Energy Squeeze — Canadian Policies for Survival*, Canadian Institute for Economic Policy, James Lorimar and Company Toronto, 1980, p. 116.

56. *Ibid.*

57. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 91.

58. Recent agreement between the federal government and Nova Scotia regarding the development of off-shore energy resources. *Id.*, 43.

PART II — GOVERNMENT REGULATION OF THE PETROLEUM INDUSTRY

From the day of its incorporation to the day when its petroleum product is finally passed to the end user a company, exploring, producing, or distributing, petroleum products must conform to a complex body of government regulations. It would be beyond the scope of this project to study each of these regulation and its effect on the industry. Instead, attention will be focused on the most important of these regulations.

Each regulation is embodied in a law. In many cases there is a governing body that insures compliance with the regulations. What follows is a brief resume of some of the most important regulations governing the oil industry and the boards that have been established to monitor these acts.

A) LEGISLATIVE MEASURES

The Energy Administration Act⁵⁹ — formerly known as the Petroleum Administration Act — imposes a charge on the export of crude oil and regulates the price of Canadian crude oil and natural gas in interprovincial and export trade. The act contains a pricing schedule which is designed:

- a) to achieve a uniform price throughout Canada.
- b) to achieve a balance between the interests of consumers and producers of petroleum products.
- c) to protect consumers in Canada from instability of prices for petroleum in international markets.
- d) to encourage the discovery, development and production of a supply of crude oil adequate to the self-sufficiency of Canada.

Petroleum and Gas Revenue Tax Act⁶⁰

This act imposes a tax on the revenues of companies engaged in the production, refining, processing and marketing of petroleum or gas. The tax revenue generated has been used to finance the Petroleum Incentives Payment Program.

59. Statutes Canada, S.C. 1980-81-82-83, c. 47.

60. *Id.*, c. 68.

Canada Oil and Gas Act⁶¹

This act regulates the exploration for oil and gas on lands belonging to Her Majesty. It contains stringent provisions for Canadian ownership and control of companies exploring on these lands and imposes very high royalties in favour of the Crown.

Energy Monitoring Act⁶²

This act requires all energy enterprises to supply information regarding: ownership and control of the company, sources and applications of its funds, distribution of profits, its research and development programs, as well as all information regarding costs and revenues of exploration, development, production, and marketing of energy commodities. The act also creates the Petroleum Monitoring Agency which compiles all this information.

National Energy Board Act⁶³

This act creates the National Energy Board which oversees the granting of licenses and permits for the construction and operation of all pipelines and power lines. The Board makes decisions in all matters relating to the traffic, tariffs or tolls of oil and gas. The act also empowers the National Energy Board to issue licenses for the import and export of oil and natural gas.

Oil and Gas Production and Conservation Act⁶⁴

This act allows the government to make rules and regulations regarding the exportation production and refining of oil and natural gas. It includes provisions regarding health and safety standards, the rate at which oil and gas can be produced from any well or field, the type of materials to be used, the kind of testing that must be done, etc.

Petroleum Incentive Act⁶⁵

This act promotes government's program of encouraging Canadian owned companies to actively participate in the exploration and development of new energy sources. The act provides for direct incentives according to the varying degrees of Canadian ownership of the firm. The program is administered by a special Board which is

61. *Id.*, c. 81.

62. *Id.*, c. 112.

63. Revised Statutes Canada, 1970, c. N-6.

64. *Id.*, c. 0-4.

65. S.C. 1980-81-82-83, c. 107.

also charged in determining what is the degree of Canadian ownership.

Petro-Canada Act⁶⁶

Assented to in 1975, this law creates the Crown Company known as Petro-Canada. The company has as its objects: the exploration and development of oil and gas deposits; the researching and development of projects relating to oil and gas; and the production, refining, distributing and marketing of these fuels. Although originally limited to an authorized capital of \$500 million, this soon grew to \$1.5 billion and new provisions were added in 1980 whereby the company's authorized capital is now limited to \$5 billion.⁶⁷

B) FISCAL MEASURES

Before 1980 most of the fiscal measures, whether in the form of taxes or revenues, were found in the Income Tax Act.⁶⁸ When the Import Compensation Program was instituted in 1973-1974 in order to maintain low oil prices in Canada, it was coupled with an export tax so that domestic producers would be discouraged to export oil. The export tax was equal to the difference between the domestic price and the export price. The difference between what the government was paying in compensation and revenues received through the export tax is what it was costing the taxpayers to have a "made in Canada" price for petroleum products.⁶⁹ The dollar amount of this account, labeled "Oil Export Charge", is described in Table II-1.

Table II-1

Year	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
\$millions	+224	-160	-127	-64	-20	-10	-443

Source: The Budget Minister of Finance 1974-84. Government of Canada, Revenues, Public Accounts and National Accounts Reconciliation.

66. S.C. 1974-75-76, c. 61.

67. S.C. 1980-81-82-83, c. 61.

68. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 25, 156.

69. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 36.

When the National Energy Program was initiated in 1980 all expenditures relating to energy were grouped in what is now termed the energy envelope. This envelope includes the cost of the compensation program, the federal costs of the Petroleum Incentives Program as well as all other federal government programs concerning energy supply, conservation and off oil substitution.⁷⁰ The National Energy Program, as originally introduced, calls for total expenditures of \$11.6 billion.⁷¹

In order to pay for its ambitious programs the Petroleum and Gas Tax Act was introduced. It levied an 8% tax on all oil and gas revenues of all companies in Canada.⁷² Since 1980 the amounts of expenditures incurred by the various programs and the revenues generated are found in Table II-2.

Table II-2

Expenditures (\$millions)	80-81	81-82	82-83	83-84
Petroleum Incentives Program	—	940	1,809	1,650
Petroleum Compensation Account	2,684	120	(35)	261
Other Energy Programs	<u>940</u>	<u>1,611</u>	<u>1,234</u>	<u>1,538</u>
Total Energy Envelope Expenditures	3,624	2,671	3,008	3,449
Revenues (\$millions)				
Petroleum and Gas Revenues Tax	27	864	1,960	1,980
Oil Export Charge	673	519	160	—
Natural Gas and Liquid Gas Tax	<u>187</u>	<u>998</u>	<u>1,264</u>	<u>430</u>
Total Energy Revenue	887	2,381	3,384	2,410
Net Cost of Programs	2,737	290	(376)	1,039

It must be noted that both retail sales tax and corporate taxes have been excluded from the revenue side. On the expenditure side administrative costs have been omitted. In addition, in order to finance Petro-Canada's appetite for acquisition, a special Canadian

70. MINISTER OF FINANCE, *The Budget in More Detail*, 1981, p. 21.

71. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 90.

72. MINISTER OF FINANCE, *op. cit.*, note 70, 56-57.

Ownership charge has been levied on the retail sale of gasoline. This charge adds approximately 3.5 cents per gallon to the price of gasoline and home heating oil⁷³ and is expected to yield approximately \$1 billion per year through 1987-1988.⁷⁴

In effect, the large sums of money passing in and out of government hands represents an income transferring scheme. The Import Compensation Plan transfers income from domestic producers who are earning huge economic rents due to a rise in world oil prices to those companies who must pay higher prices to import oil. The Petroleum and Gas Revenue tax transfers income from all the petroleum companies to those who qualify for incentives under the Petroleum Incentive Program; i.e. those with high degree of Canadian ownership or control.

The number and magnitude of regulation and the dollar amounts represented raises many questions. The wisdom and efficacy of these programs will be discussed in the following chapters.

PART III — IMPACT

It is often very difficult to estimate the impact of any government policy, particularly one as broad as the N.E.P. This is especially true when we are dealing with such a volatile subject as energy which is so heavily influenced by external factors such as the rise and fall of world oil prices and supply interruptions. In analyzing the effects of any government policy the notion of "what if" must always be examined. What if government had not legislated, would the results be dramatically different or would they be more or less the same? In other words, do Canadians owe their high standard of living to effective government policy or is it due to the fact that Canada, as a nation, is blessed with an abundance of natural resources, that permits the maintenance of a high standard of living in spite of increased government intervention?

Government intervention has always been justified on the basis of the need to cure market imperfections.⁷⁵ The ensuing regulations may produce both the desired effects as well as both desirable and

73. W. STANBURY and F. THOMPSON, *Regulatory Reform in Canada*, The Institute for Research on Public Policy, Montreal, 1982, p. 85.

74. MINISTER OF FINANCE, *Budget Documents*, 1984.

75. Stephen BREYER, "Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives and Reform", (1972) 92 *Harvard Law Review* 553.

undesirable side effects. The impact of government regulation on energy will be felt directly by anyone who owns a house or drives a car and indirectly by all members of society. The impact will be on the regulated industry as well as on all other industries whose products are substitutes for those of the regulated industry. Within the energy industry, government regulation in the petroleum industry affects other energy producing industries such as gas, electricity, and nuclear energy. On the other hand, events might be taking place in a related industry which may have a profound effect on the regulated industry.

The impact of the Canadian Government's energy policy on three important elements of the National Energy Program namely; price, Canadianization and conservation will be examined below.

A) ENERGY POLICY AND ITS EFFECTS ON PRICE

One of the cornerstones of the National Energy Program is to establish a single price for crude oil in Canada.⁷⁶ This set price was to be increased at six month intervals and the increases were designed to foster the development of new supplies as well as encourage conservation.⁷⁷ These prices were to always remain 85% of the international price or the average price of oil in the United States, whichever is lower.⁷⁸ Whatever the government's intentions might have been this promise seems to have been abandoned. Table III-1 illustrates the cost of purchasing 100 litres of regular gasoline in the U.S. and Canada.

Looking at these figures, it is clear that while prices in the U.S. have been dropping steadily since 1981, prices in Canada continue to rise. The high price in Canada is due to the fact that it is a regulated one, based on a fixed price schedule, while the U.S. responds to the market determinants of demand and supply. Taxes make up an increasingly large portion of this price and it is important to note that provincial taxes on the retail sales of gasoline has risen substantially, as much as 210% in Quebec since 1978.⁷⁹

The price of oil is important in many respects. By regulating it, government hopes to influence the quantity demanded as well as the quantity that the producers are willing to supply. A high price will

76. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 23.

77. *Id.*, 30.

78. *Ibid.*

79. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 89.

Table III-1: Gasoline Prices in Canada and the United States
(expressed in \$U.S. per 100 litres of standard gasoline)

	1970	1972	1973	1974	1975	1976	1977
Canada	10.1	10.4	10.4	12.9	14.0	17.4	18.6
U.S.	9.2	9.8	10.5	12.2	13.8	15.2	15.8

	1978	1979	1980	1981	1982	1983
Canada	18.2	19.5	22.1	32.2	40.1	42.0
U.S.	16.3	22.3	31.9	36.7	33.0	30.0

Source: Economic Council of Canada Discussion Paper # 222
International Energy Comparisons, page 65
Statistics Canada — Consumer Prices and Consumer
Price Index 1973-1983
U.S. Department of Commerce of Current Business,
October 1983

also focus the consumer's attention on energy conservation and will encourage substitution. In addition, as revenues from oil and gas are a growing source of government income, the quantity produced and the elasticity of the demand for the product will have important consequences on taxation policy as well as on the federal budget.

In a study undertaken by the Economic Council of Canada⁸⁰ the implications of high energy prices versus low energy prices were examined. Although there are advantages and disadvantages to each scenario, the report concluded that a move towards international prices was more desirable as it would have the effect of encouraging new development while allowing the government to receive large revenue by taxing windfall profits.⁸¹

In summary, the pricing policy of the N.E.P. can be seen as the principal determining factor of what Canadian pay for oil and gas. The usual free market forces of demand and supply have been abandoned for a fixed and rigid price structure.

80. T. PAVRIE and W. GAINER, *Canadian Policy Toward Trade in Crude Oil and Natural Gas*, Economics Council of Canada, Ottawa, 1973.

81. *Id.*, 92.

B) ENERGY POLICY AND ITS EFFECTS ON CANADIANIZATION

As early as 1976,⁸² the need for increased Canadian participation in the Petroleum industry was stressed. This conviction is based on the belief that there are important economic benefits in encouraging Canadians to own more of its oil and gas industry and to participate more actively in its management in the future.⁸³ With respect to Canadianization the National Energy Program's goals are threefold: a) 50% Canadian ownership of oil and gas production by 1990; b) Canadian control of a significant number of larger oil and gas firms; and, c) an early increase in the share of the oil and gas sector owned by the government of Canada.⁸⁴

In order to promote the first two of these objectives the Petroleum Incentives Program is highly advantageous to Canadian companies as is the Canada Lands Act. The tremendous growth of Petro-Canada is a manifestation of the third objective.

Empirically, the data shows that between 1980-1982 Canadian ownership and control of oil and gas resources has grown from 25%-34%.⁸⁵ In this respect then, the program is working, however, the effect that this Canadianization has, is questionable. While increasing Canadian participation at the expense of foreign capital it can be argued that there will not be enough money to fund some of the capital intensive exploration and development projects. The advantages provided to Canadian firms excludes many smaller American firms from exploring when it is these firms that have often been so successful in finding new oil reserves.⁸⁶

C) ENERGY POLICY AND ITS EFFECTS ON CONSERVATION

"Energy conservation provides the cleanest, most enduring and, in many instances, the cheapest part of the solution to the energy puzzle."⁸⁷

Energy conservation can be regarded as an energy source, especially when it displaces imported oil,⁸⁸ and it has been estimated

82. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 25.

83. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 45.

84. *Ibid.*

85. *Id.*, 47.

86. SAMPSON, *op. cit.*, note 2, 174.

87. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 69.

88. STOBOUGH and YERGIN, *op. cit.*, note 1, 167.

that as much as a 30% reduction in energy consumption will not necessarily result in any drop in the standard of living.⁸⁹ Government involvement in energy conservation has been significant at both the federal and provincial level. The N.E.P. provides for extensive grants to all sectors of the economy, including residential, commercial, and industrial. In the field of transportation, many programs are available in order to achieve government's goal of reducing consumption. The programs available include grants for better insulation, grants to improve fuel oil burner efficiency and the imposition of mileage standards for automobiles. A major thrust has been launched to encourage consumers to convert off oil to other more plentiful energy commodities such as electricity.

Canadians are fortunate in that alternate energy sources are readily available and the results of the program have been encouraging. Table III-2 illustrates the shift that has taken place in the percentage of homes using the different energy sources.

Table III-2

Canada	Oil	Gas	Electricity
1973	55%	34.8%	7%
1983	28%	44.2%	23%

Source: "L'électricité prend la tête au Québec pour le chauffage", La Presse, January 12, 1984.

This conversion away from oil should continue as government grants are still available. Prices and availability of the different commodities will also play an important role in helping the consumer make his decision.

The effects of Canada's conservation measures have resulted in a large drop in the demand for all energy products, especially imported oil.⁹⁰ The exact contribution made by conservation is difficult to measure because of other mitigating factors such as the world wide economic slowdown in 1981-1982. As for energy conservation neither its importance in solving the energy problem nor its positive input on the overall economic situation can be underestimated.

89. *Ibid.*

90. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 81-85.

PART IV — DEFECTS IN THE PROGRAM

A) CONFLICT OF OBJECTIVES

At first glance the N.E.P.'s stated objectives of energy security, opportunity and fairness do not seem to present any conflicting notions. The program's influence on the economy, although difficult to measure in precise terms, is enormous. By regulating the price of petroleum products and allowing it to rise towards world levels, the effects will be most profound. Both Canada's industrial output and the factors of production employed will be affected.

First, any price increase in energy commodities contributes to the rise in the rate of inflation. Second, as the consumer spends more money on energy, he will be left with less income to spend on other goods and services. Due to the fact that the short-term demand elasticity for energy products is very low,⁹¹ changes in price do not radically affect changes in consumer demand for the product. The result is that approximately the same amount of oil will be consumed but a greater outlay will be required. The final result is a lower aggregate demand for the economy which could lead to low growth and increased unemployment.⁹²

In the longer term the effects can be even more profound, according to Brendt:

"Economic theory suggests that competitive firms will choose the combination of inputs that produces the desired output at minimum cost. This implies that cost-minimizing firms will devote considerable attention to input prices. For example, if a firm observes that wages are high and energy prices are low, then, other things being equal, it will tend to choose a production process that is more energy-intensive and less labour-intensive than if energy prices were high and wages were low. In short, the derived demands for inputs depend on the level of output, the substitution possibilities among inputs allowed by the production technology and the relative price of all inputs. Economic theory suggests, therefore that derived demand for energy will be affected by changes in the price of inputs, the level of output, and the extent to which technology permits substitution among energy and non-energy inputs."⁹³

91. The elasticity of demand for fuel has been estimated to be 0.7. Anything less than 1 is considered to be inelastic. L. HINES, *The Persuasion of Price: An Introduction to Microeconomics*, Cambridge, Winthrop Publishers Inc., 1977, pp. 89-91.

92. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 11.

93. E. BRENDT, "Energy Demand and Economic Growth", in C. WATKINS and M. WALKER, editors, *op. cit.*, note 20, 50.

In practice because a production process is not easily modified, higher energy prices are reflected in higher prices for goods and services. By allowing prices in Canada to rise to world levels, Canadian manufacturers lose whatever low input cost advantages they might enjoy in world markets. This is important not only on the balance of trade but it is also reflected in the prices Canadians pay for domestically produced products. Canada's domestic base is a relatively small one and its manufacturers are most efficient when they can produce on large economies of scale. These economies of scale are only possible when products are produced for both the domestic and export market.

Government in choosing between several different price scenarios must examine the compatibility of its proposed plans with the objectives of some of its other programs, concerning employment, anti-inflation, G.N.P. growth, balance of trade, etc.

The perceived link between G.N.P. growth and energy consumption is a second problem, as policy makers are confronted with the widespread belief that the two are inextractably linked.⁹⁴ Statistics reveal that energy consumption tends to move along more or less in line with G.N.P.⁹⁵ Recently, however, studies have shown that the relationship between the two is more elastic than previously assumed and that it is possible to slow down the rate of energy consumption without affecting economic growth.⁹⁶

B) UNRELIABILITY OF DATA

“Hindsight is 20/20”

A major problem when examining any long range strategic program such as the N.E.P. is the reliability or plausability of the premises and predictions upon which the program is based. The hazards of long range energy forecasting is well acknowledged.⁹⁷ Studies done in the early and mid-seventies predicted serious energy shortages by 1985 and the possible depletion of all fossil fuels by the year 2000.⁹⁸

94. STOBOUGH and YERGIN, *op. cit.*, note 1, 174.

95. BRENDT, *loc. cit.*, note 93, 59.

96. STOBOUGH and YERGIN, *op. cit.*, note 1, 174.

97. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 27, 10.

98. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 25, 14-16.

Although the impending depletion of oil is not to be taken lightly, recent developments have caused many experts to revise their doomsday predictions. The world-wide economic recession of 1981-1982, precipitated by the second oil price shock of 1979-1980, resulted in a 20% drop in oil demand in Canada.⁹⁹ O.P.E.C.'s 5% decline in crude oil production recorded in 1983 was its smallest drop in four years and the Cartel's overall share of the market is now 46% of the total produced.¹⁰⁰

Within Canada, a recent survey of oil reserves establishes that proven and viable reserves will last at least ten years while the country's undiscovered conventional oil resources might add up to 37 billion barrels, enough to last 75 years.¹⁰¹

Another major difficulty in making predictions is that they are usually based on current trends. Little acknowledgement is given to technological advances and mankind's ability to adapt to new realities. Within Canada the movement towards conserving energy has resulted in a permanent downward shift in the demand for oil. Higher mileage cars, better insulated buildings and more energy efficient production processes are here to stay. Making long-term predictions based upon short-term data is similar to predicting the finish of a 26-mile marathon based on the results of a 100 yard dash.¹⁰²

The precariousness of prediction-making is well illustrated by what has occurred in the United States in the nuclear energy industry. Initially, it was hoped that nuclear energy would serve a large part of America's energy needs, however, the industry has suffered a series of set-backs. Since the 1979 accident at Three Mile Island, tougher safety standards have been imposed and, coupled with strong consumer reaction against nuclear power the result has been the closing of several existing plants as well as the cancellation of numerous other projects.¹⁰³ The prognosis for the industry is not very good and it is now estimated that nuclear power will provide approximately 20% of America's energy needs by 1990.¹⁰⁴ To fill this

99. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 35, 82.

100. "O.P.E.C. Output Declines in 1983", in *Montreal Gazette*, February 14, 1984.

101. "Proven Oil Reserves Will Last 10 Years", in *Montreal Gazette*, January 24, 1984.

102. STOBOUGH and YERGIN, *op. cit.*, note 1.

103. P. STROLER, "Pulling the Nuclear Plug", in *Time Magazine*, Toronto, Time Canada Ltd., February 15, 1984, p. 37.

104. *Id.*, 34.

void additional strains will be put on the various substitutes; therefore, despite government efforts to cut reliance on imported oil, gas and coal these plans may be in jeopardy.

Finally, it must be remembered that government policy is primarily an attempt to reconcile the different and often conflicting interests of society.¹⁰⁵ Policy decisions are not always based on purely economic criteria and empirical data in the form of statistics, estimates, and predictions is very often used to support or justify government policy. The notion of why government chooses certain regulatory policies and why certain instruments are chosen over others will be discussed below.

PART V — THE CHOICE OF THE REGULATORY INSTRUMENT

“Why, When, How Much, and Which One”

A) THE CALCULAS OF CHOICE

It has been said that due to its very nature, oil is unlike other products therefore impossible to be ruled by the usual rules of demand and supply.¹⁰⁶ Not only does the nature of the product result in a highly concentrated seller's market¹⁰⁷ prone to monopolistic practices¹⁰⁸ but oil has also come to be considered as a common property resource whose benefits should be shared equally among all members of society.¹⁰⁹

Government intervention, based on traditional economic justification of the need to control and prevent improper allocation of resources, is an attempt to cure these market imperfections.¹¹⁰

105. M. TREBILCOCK ET AL., “The Choice of the Governing Instrument”, in ECONOMIC COUNCIL OF CANADA, *Responsible Regulation: An Interim Report*, Hull, Ottawa Supply and Services Canada, 1979, p. 22.

106. SAMPSON, *op. cit.*, note 2, 34.

107. Chapter I, page 4. Some authors maintain an opposing view and argue that the petroleum is not overly concentrated and is indeed highly competitive. W. MEAD, “Private Enterprise, Regulation and Government Enterprise in the Energy Sector”, in C. WATKINS and M. WALKER, editors, *op. cit.*, note 20, 129.

108. BERTRAND, *op. cit.*, note 13, vol. 1.

109. ECONOMIC COUNCIL OF CANADA, *op. cit.*, note 105, p. 13.

110. L.B. DOERN, editor, *The Regulatory Process in Canada*, Toronto, MacMillan, 1976, p. 7.

Within the petroleum industry, intervention encompasses just about every regulatory tool available, including: taxation,¹¹¹ incentive programs,¹¹² regulatory commissions,¹¹³ price setting,¹¹⁴ resource allocation,¹¹⁵ and most recent, the use of a public corporation.¹¹⁶ Each instrument of intervention is designed to cure a particular problem or achieve a desired government objective. The use of the various instruments is orchestrated in order to render a maximum benefit while entailing the least cost.

According to Trebilcock et al.:

"In principle, the reduction by government of a market imperfection reduces a source of inefficiency and thereby results in a net increase in the output of valued goods and services."¹¹⁷

The net increase of goods and services is calculated on a cost benefit relationship. Contrary to Pareto's theory¹¹⁸ benefits are calculated on a net basis and many programs can be regarded as income transferring or wealth redistribution schemes. Inevitably, this means that there will be winners as well as losers. Costs can be either direct or indirect. Direct costs include government expenditures on administration and enforcement as well as the cost to individuals in the private sector who must comply with the various regulations.¹¹⁹ Indirect costs, which are much more difficult to measure, arise from the various inefficiencies attributable to regulatory intervention.¹²⁰ If these regulatory regimes create, rather than correct for allocative inefficiencies than they are not welfare maximizing.¹²¹

In its interim report on Responsible Regulation¹²² the Economic Council of Canada strongly recommended a more careful

111. *Petroleum and Gas Revenue Tax Act*, S.C. 1980-81-82-83, c. 68.

112. *Petroleum Incentive Payment Act*, S.C. 1980-81-82-83, c. 107.

113. *National Energy Board Act*, R.S.C. 1970, c. N-6.

114. *Energy Administration Act*, S.C. 1980-81-82-83, c. 47.

115. *Canada Oil and Gas Act*, S.C. 1980-81-82-83, c. 81.

116. *Petro-Canada Act*, S.C. 1974-75-76, c. 61.

117. TREBILCOCK ET AL., *loc. cit.*, note 105, 5.

118. *Id.*, 4.

119. ECONOMIC COUNCIL OF CANADA, *op. cit.*, note 105, 10.

120. *Ibid.*

121. TREBILCOCK ET AL., *loc. cit.*, note 105, 1.

122. ECONOMIC COUNCIL OF CANADA, *op. cit.*, note 105.

examination of the cost-benefit relationship of proposed regulation as well as a systematic review of existing regulation. As Adam Smith wrote over two hundred years ago:

"Laws frequently continue in force long after the circumstances which first gave occasion to them, and which could alone render them reasonable, are no more."¹²³

This is especially true in today's context where regulation and the choice of the regulatory instrument is often based on political rather than economic criteria. Unfortunately, the multiplicity of regulation makes it very difficult to calculate the exact costs-benefits of one particular policy.¹²⁴

Government regulation has been defined as the imposition of constraints, backed by government authority which are intended to modify the behaviour of individuals in the private sector.¹²⁵ When evaluating regulation the trade off between coercion versus individual freedom must be carefully examined.¹²⁶ The imposition of regulation should not be evaluated on the often difficult to estimate cost-benefit relationship but also on the notion that government should only impose constraints on individual freedom in those cases which are incurable through any other method of intervention.

As Breyer suggests¹²⁷ government must carefully analyze the market imperfections or deficiencies and respond to issues by moving from the least coercive to the most coercive tools available.¹²⁸ Regulatory instruments must be carefully matched to policy objectives and should be aimed at only the worst cases as not every market ill has government intervention as a cure.¹²⁹ Unfortunately, these theories are not always subscribed to by the policy makers and what really takes place in the decision making process can be briefly summarized as follows.

In a democratic society government's duty is twofold: it must make rules and enforce them, and it must supply goods and services

123. Adam SMITH, *The Wealth of Nations*, 1776.

124. TREBILCOCK ET AL., *loc. cit.*, note 105.

125. ECONOMIC COUNCIL OF CANADA, *op. cit.*, note 105, 13.

126. *Id.*, 9.

127. BREYER, *loc. cit.*, note 75, 553.

128. TREBILCOCK ET AL., *loc. cit.*, note 105, 23.

129. *Ibid.*

to its populace when the private sector is unable to do so.¹³⁰ According to Pigou, in carrying out these functions, government must attempt to reconcile the diverse and often conflicting interests of its society's members.¹³¹ Policy decisions, in the form of when to intervene and using what instrument will not only be based on economic criteria such as technological efficiency but on political considerations as well. As it turns out, the least cost choice is not always the most favorable in political terms.¹³²

Initially, changes in government policy might come from a specific interest group.¹³³ Once there is a consensus within the government that a policy change is necessary, government will examine how its choice of the regulatory tool can be most effective in terms of vote maximization.¹³⁴ As an example: in order to cure a certain market imperfection, government is faced with two possible regulatory tools as comprising policy A or policy B. Public opinion shows that policy A is more favorable to a greater percentage of the population than policy B is. According to the notion of vote maximization the government, because they want to be re-elected, will choose policy A even if policy B would be more economically efficient.

The importance of these political considerations will be diminished somewhat when government is faced with an emergency situation and might be forced to impose unpopular regulatory controls.¹³⁵ Political considerations might also be diminished when other regulatory tools are ineffective in bringing about the desired results.¹³⁶

While a precise theory for regulation has yet to be developed it can be concluded that government objectives can often be achieved by using a wide range of regulatory instruments. To regulate is merely to choose one instrument of governing from a range of other

130. *Id.*, 3.

131. T. BORCHERDING, "Toward a Positive Theory of Public Sector Supply Arrangement", in R. PRICHARD, ed., *Crown Corporations in Canada*, Toronto, Butterworth, 1983.

132. TREBILCOCK ET AL., *loc. cit.*, note 105, 27.

133. DOERN, *op. cit.*, note 110, 5.

134. TREBILCOCK ET AL., *loc. cit.*, note 105, 19.

135. *Id.*, 32.

136. R. HARRIS and E. WIENS, "Government, an Instrument for the Internal Regulation of Industry", 13 *Canadian Journal of Economics* 131.

instruments.¹³⁷ As noted thus far in regulating the Canadian Petroleum Industry, the federal government has used almost every instrument imaginable. Among the most recent tool employed has been the use of public enterprise in the form of Petro-Canada. The reasons why this instrument has been chosen, as well as the advantages and disadvantages of a Crown Corporation will be discussed below.

B) THE CROWN CORPORATION

Public enterprise is the term used when government is engaged in providing goods and services to the public on a commercial or quasi-commercial basis.¹³⁸ In Canada, this phenomena is known as the Crown Corporation. At last count, the Comptroller General's listing had some 344 government related corporation in varying degrees of ownership, control or association.¹³⁹ These Crown Corporations employed over 200,000 people and controlled over \$29 billion worth of assets.¹⁴⁰

Although the widespread use of the public corporation is undisputed, there seems to be a problem in developing a theory on the subject as there exists no clear cut criteria for the use of public enterprise. For example, in controlling a natural monopoly, public enterprise has been accepted as an effective tool, however it is equally accepted that this is not the only tool.¹⁴¹ Furthermore, in some industries the Crown Corporation has been used as an alternative to other instruments such as taxation, expenditure policy, or regulation, while in other industries the Crown Corporation has played a complimentary role, employed along with other regulatory tools.¹⁴²

Contradictions also exist regarding the supposed function of a Crown Corporation. As Trebilcock notes:

"In some ways public corporation resembles private sector enterprises, maximizing profits subject to constraints of applicable regulation or direction.

137. DOERN, *op. cit.*, note 110, 14.

138. TREBILCOCK ET AL., *loc. cit.*, note 105, 74.

139. M. TREBILCOCK and R. PRICHARD, "Crown Corporations: Calculas of Instrument Choice", in R. PRICHARD, ed., *op. cit.*, note 131, 3.

140. *Id.*, 76.

141. *Id.*, 42.

142. TREBILCOCK ET AL., *loc. cit.*, note 105, 73.

In other ways they resemble bureaucracies executing public policies designed to promote non-market objectives.¹⁴³

Through a careful analysis of its legal and institutional characteristics Trebilcock and Prichard have identified seven predominant areas, or fields of activity where public enterprise has been chosen as the instrument of intervention.¹⁴⁴ Within each area there is a certain rationale why the use of public enterprise is justified and looking at Petro-Canada it is apparent that its "raison d'être" does not belong to any one specific category.

Given that several regulatory tools are being used simultaneously within the petroleum industry, it would seem that Petro-Canada's primary role is to act as a yardstick competitor within the industry.¹⁴⁵ In order to properly regulate in any industry, government requires information regarding the different inputs, particularly price, availability of supply, and the state of technology. Relying on private firms for this information is both costly and prone to distortion as the private firm will often act in its own self-interest.¹⁴⁶ When there are information deficiencies, regulatory tools, no matter what their scope or objective, have very little chance in succeeding. Through the establishment of Petro-Canada, a window on the industry is created which allows for precise information on the factors that determine the direction of regulation.¹⁴⁷ The flow of information is two-way. Petro-Canada supplies information to various regulatory boards such as the N.E.B. This facilitates the N.E.B.'s task of controlling the flow of the various energy products and the granting of import and export permits.¹⁴⁸ In the opposite direction, the regulatory boards will supply Petro-Canada with information that will enable it to make decisions on its output policy, which if in a dominant market position will affect output, and consequently profit of the other firms within the industry.¹⁴⁹

Petro-Canada's role is also to encourage economic activities directed to nation building and community development.¹⁵⁰ The role

143. *Id.*, 76.

144. TREBILCOCK and PRICHARD, *loc. cit.*, note 139, 40-46.

145. *Id.*, 68.

146. HARRIS and WIENS, *loc. cit.*, note 136, 131.

147. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6.

148. TREBILCOCK and PRICHARD, *loc. cit.*, note 139, 70.

149. HARRIS and WIENS, *loc. cit.*, note 136, 125.

150. TREBILCOCK and PRICHARD, *loc. cit.*, note 139, 70.

of the state in Canada's economic development, particularly one based on the trade of staple products, cannot be underestimated.¹⁵¹ Because of vast geographical, economic and demographic differences, Canada's economic development has taken a very different course than that of its neighbor to the south. From the earliest canal and railway undertakings, the federal government has always assumed a large role in providing the necessary capital to fuel these projects. Anytime a project of national importance is undertaken, the federal government shows little hesitancy in providing the necessary capital thus assuring itself a vital role in overseeing that the project is properly developed and its fruits properly distributed.

The importance of securing a steady supply of petroleum products and its effects on national security is another rationale for public enterprise. On the international level the creation of Petro-Canada will enable the Canadian government to deal directly with foreign countries in securing supplies of oil,¹⁵² and will enable Canada to speak with a single voice.¹⁵³ Domestically, Petro-Canada will search for oil in areas otherwise ignored by private companies because of economic feasibility.

The use of Petro-Canada can also be explained by the government's desire to show that it is taking constructive action in correcting a serious problem. The high visibility profile of Petro-Canada also promotes another objective of the federal government in strengthening national unity in the creation of a symbol of national pride.¹⁵⁴

Finally, in examining the choice of public enterprise as the regulatory tool the political ideology of the party in power can have important consequences.¹⁵⁵ In distinguishing between left and non-left parties it has been concluded that left governments are more widely associated with public ownership.¹⁵⁶ However, as Chandler

151. See A. EASTERBROOK and H. AITKINS, *Canadian Economic History*, Toronto, MacMillan and Co., 1961.

152. Agreements of this kind have already been concluded on a government level between Petro-Canada and Pemex, Mexico's state owned oil company. DEPARTMENT OF ENERGY, MINES AND RESOURCES, *op. cit.*, note 6, 88.

153. The dangers of this policy will be discussed *infra*.

154. TREBILCOCK ET AL., *loc. cit.*, note 105, 32.

155. M. CHANDLER, "The Politics of Public Enterprise", in R. PRICHARD, ed., *op. cit.*, note 131, 185.

156. *Id.*, 199-200.

explains the reason for creating Crown Corporations can be very different between left and non-left governments.

“For the most part non-left governments have viewed public ownership not as an instrument for controlling or shaping the economy but rather as an alternative to incentives, subsidies and the like in support of the private sector. The left or the other hand have used Crown Corporations as instruments of economic and social control in line with the goals of redistribution and decentralization. While governments of diverse ideologies have used Crown Corporations, they have used them for diverse objectives.”¹⁵⁷

It is interesting to note that the creation of a federal Crown Corporation in the petroleum industry was first announced by Prime Minister Trudeau in December 1973 during a period of minority government in which the N.D.P. held the balance of power.¹⁵⁸

Disadvantages

The use of a Crown Corporation in the petroleum industry presents several interesting problems. As an alternative to some regulatory tools and a compliment to others its overall impact on the industry is very difficult to estimate. Evaluating its performance and deciding whether it was the right instrument of regulation is even more difficult to assess.

In terms of evaluating the performance of a public enterprise two studies, one Australian,¹⁵⁹ and one Canadian¹⁶⁰ merit some attention. In Australia, the government owned Trans-Australian Airlines was found to be less economically efficient than its privately owned counterpart.¹⁶¹ The recent Canadian study of the Toronto Transit Commission's Gray Coach Bus Line, shows that in terms of profit, return on investment, technological efficiency and maintenance costs, the publicly owned Gray Coach was consistently behind the performance of privately owned Greyhound.¹⁶²

These studies support the notion that within a public corporation, there is little incentive to produce efficiency.¹⁶³ Management in the

157. *Id.*, 218.

158. STANBURY and THOMPSON, *op. cit.*, note 73, 66.

159. MEAD, *loc. cit.*, note 107, 149.

160. J. PALMER, J. QUINN and R. RESENDES, "A Case Study of Public Enterprise: Gray Coach Lines Ltd.", in R. PRICHARD, ed., *op. cit.*, note 131, 369.

161. MEAD, *loc. cit.*, note 107, 149.

162. PALMER, QUINN and RESENDES, *loc. cit.*, note 160, 405-419.

163. MEAD, *loc. cit.*, note 107, 151.

public corporation are merely employees and they have no vested interest in the profitability of the firm. In the private sector, owners of the firm will seek to maximize profits by cutting costs or through innovative technology.¹⁶⁴ This financial incentive does not exist in a public corporation.

It is very difficult to measure a public corporation's contribution in terms of output only as the Crown Corporation is also intended to pursue other policy objectives in addition to profit.¹⁶⁵ If this were not so then there is no clear justification for having public enterprise.¹⁶⁶ Air Canada's pursuit of broader policy objectives such as providing reasonably priced air transportation to all Canadians, makes comparisons to other airlines impossible, if performance is based on profit only. On the other hand, when the public corporation is given preferential rights¹⁶⁷ comparative evaluation will also be impossible. Therefore since profit is not the only objective of a Crown Corporation, what should be evaluated is whether the loss of production efficiency is made up by the overall welfare benefit.¹⁶⁸

Economic evaluation of the instrument of choice might be totally inappropriate if the policy decision was based on political rather than economic considerations.¹⁶⁹ If economic efficiency is sacrificed at the expense of political benefit than the use of a Crown Corporation will be judged appropriate if it produced a net political rather than a net economic gain.

On the international level the multinational oil companies have served as a buffer between the producer and buyer states.¹⁷⁰ Apolitical multinationals have traditionally concluded purchasing agreements based on price only. A national oil company, on the other hand, is part of the government and its decisions can be based on considerations other than price. Therefore, in order to secure a steady supply of foreign oil, the Canadian government might be forced to compromise on some of its foreign policy objectives. This is

164. *Id.*, 150.

165. TREBILCOCK ET AL., *loc. cit.*, note 105, 81.

166. MEAD, *loc. cit.*, note 107, 50.

167. Petro-Canada's preferential drilling and exploration rights on Crown Corporation Lands. See *Canada Lands Act, Oil Gas Canada*, S.C. 1980-81-82-83, c. 81.

168. BORCHERDING, *loc. cit.*, note 131, 122.

169. TREBILCOCK ET AL., *loc. cit.*, note 105, 103.

170. SAMPSON, *op. cit.*, note 2, 69.

especially true when large quantities of oil are bought from Arab countries.

CONCLUSION

Many of the conclusions and recommendations regarding government regulation of the petroleum industry, have been expressed throughout this paper. The advantages and disadvantages of government regulation in general and the National Energy Program in particular have been examined by looking at the effects of regulation and some of the regulatory instruments chosen.

Evaluating government regulatory policies involves the broader notion of evaluating government's role within society. As already noted, in Canada, this role has traditionally been a fairly large one, especially when compared to the United States. Politically, intervention in the petroleum industry has been justified since the early 1970's, when the public's mistrust was cast upon the multinational oil companies. Economically, the need to cure the market deficiencies of the industry has served as the justification. Combined, these two forces have made it politically wise for wide intervention policies however, government intervention, as suggested by Breyer, should be directed at curing only the most serious of market ills.

What is most important is a system where government regulation is flexible. Programs should be designed which can easily be adapted to changing realities. This can only be accomplished when there is an ongoing review of the policies presently in force. The National Energy Program 1982 Update was a right step in this direction, and similar evaluations should be continued in the future.

To date, the National Energy Program has proven successful in promoting energy conservation and in reducing Canada's demand for imported oil. Although in agreement with Adam Smith's proposition that laws often remain in force long after the circumstances which justify cease to exist, it would be a mistake for any government, Liberal or Conservative, to begin to dismantle the program without a long hard look at what this would mean. A climate of uncertainty and inconsistency is not a very advantageous atmosphere for an industry which requires so much capital investment and in an industry where changes are so widely felt by all Canadians.