REFLECTIONS ON NATIONAL ENERGY BOARD REGULATION 1959-98: FROM PERSUASION TO PRESCRIPTION AND ON TO PARTNERSHIP

ROLAND PRIDDLE*

In this transcription of his keynote address given at the thirty-seventh annual Research Seminar of the Canadian Petroleum Law Foundation in Jasper, Alberta, Roland Priddle, former Chairman of the National Energy Board provides an historical summary of the regulatory role of the NEB. Starting with Canada's first Royal Commission on Energy, continuing with the energy crisis of the 1970s, through to the deregulation of the 1980s, Mr. Priddle describes numerous events and circumstances which have shaped the NEB's regulatory policies. The origins of the environment in which today's pipelines operate are traced, and the development of NEB's policies to address changing economic and political circumstances is described.

Dans cette transcription de la conférence d'honneur présentée lors du trente-septième séminaire sur les avancées de la recherche de la Canadian Petroleum Law Foundation à Jasper (Alberta), Roland Priddle, ancien président de l'Office national de l'énergie, fournit un sommaire historique du rôle de réglementation de l'ONE. À commencer par la première Commission royale d'enquête sur l'énergie, puis la crise énergétique des années 1970 jusqu'à la déréglementation des années 1980, M. Priddle décrit les nombreux événements et circonstances ayant façonné les politiques de réglementation de l'ONE. Les origines du milieu au sein duquel les pipelines fonctionnent aujourd'hui sont esquissées et l'évolution des politiques de l'ONE en réponse aux conditions économiques et politiques changeantes sont décrites.

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* Roland Priddle has been both Chairman and Board Member of the National Energy Board. This is not the first time that a former Board member has sought to provide some recollections of the institution. Douglas M. Fraser, Vice-Chairman from 1968-75, did so in an elegant memoir published in connection with the Board's 25th anniversary.

I. INTRODUCTION

I count it my good fortune to have been associated with the National Energy Board ("NEB" or "Board") as an observer, staffer, Board member and Chairman for most of its first thirty-eight years. The friendly, constructive, but not-uncritical relationship that the Board has had with many Canadian Petroleum Law Foundation members over a long period of time has been a positive factor throughout.

While I greatly enjoyed almost all of my activities at or in association with the Board, I nevertheless confess to some ambivalence about the role of administrative tribunals in our economy and society. This is largely because of the scope that they have in Canada for arbitrary decision-making without the control of Parliament or, excepting of course matters of law and jurisdictions, the courts which supervise them. Because of this scope, the most important thing that government can do for the sector that is regulated by the NEB is appoint good members to the Board. Good members must be capable people, but they must also have the humility to recognize the extent of the powers that Parliament has conferred on them and resolve always to make only prudent and moderate use of those powers.

II. BEGINNINGS

I shall start with a brief reminder of the Board's antecedents in the difficult energy circumstances of the last St. Laurent administration. The particular issue at stake was Cabinet decision-making about long-term gas exports and pipelines, particularly TransCanada PipeLines Limited ("TCPL"). The culmination was of course the "pipeline debate" of 1956 which, in the end, was more about parliamentary procedure than about pipelines.

Sensibly, a year later, the Diefenbaker government put these and other issues in the hands of Canada's first (and last) royal commission on energy, the "Borden Commission." The other issues by that time included what to do about markets for Canada's burgeoning western oil industry which was suffering a severe setback in export demand resulting from the post-Suez global recession.

Borden and his colleagues were mandated to inquire into and report on, energy export policies, pipeline economic regulation, the authority which might be conferred on a national energy board, and any special measures to deal with TCPL (although none were proposed).

A. ON THE WESTERN FRONT

Hardly surprisingly, two-thirds of the Borden Commission's hearing time was spent in Calgary where the venue was the then, newly completed Jubilee Auditorium. Submissions included ones from the Alberta Department of Mines and from the provincial Oil and Gas Conservation Board (the "Alberta Board"), represented by its first full-time chairman Mr. Ian McKinnon. Alberta's attitude to Borden and the NEB was (still is?) schizophrenic. On the one hand, she wanted what only the federal government could supply: access to out-of-province oil and gas markets and independent regulation of the conduits to such markets. On the other hand, she was no doubt fearful of federal interference in petroleum resource development (it was barely a quarter century since she had won her resource rights) and with her then-recent creation, the Alberta Gas Trunk Line.

B. WHAT MIGHT HAVE BEEN

It is of interest to note that which Borden recommended and the government did not adopt, and what Borden did not recommend, but which the second Diefenbaker government did put in place.

As to what was *not* acted on, the Borden Commission recommended that exports, imports and interprovincial trade in oil and gas be brought under licence; that oil exports and imports be authorized on the basis of annual licensed quantities; and that other forms of energy be progressively brought under the NEB's scope. The Commission wanted NEB members to have observer status in U.S. Federal Power Commission ("FPC") proceedings with regard to gas imports from Canada, and vice-versa for FPC commissioners and it recommended that an NEB member be appointed to the International Joint Commission. However, the Borden Commission thought that the economic regulation of pipelines should be administered separately — by the Board of Transport Commissioners ("BTC") — from the approval and regulation of pipeline facilities — by the NEB. And strangely, in view of the NEB's first decade of inaction on the toll front, the Borden Commission urged mandatory BTC economic regulation of pipelines, but seems not to have envisaged that common carriage should be a universal obligation of oil lines.

C. QUICK WORK IN THOSE DAYS

The Borden Commission's work was completed with the publication of its second report, having to do mainly with oil, in July 1959. But the government had already been busy on the legislative side. A bill for a *National Energy Board Act*[1] was presented that spring and assented to in July. In August, the first Board members were appointed and after the Board's Rules of Practice and Procedure were approved, the *Act* was proclaimed in force on 2 November 1959. Pretty quick work, but governments worked more quickly in those simpler days. And, one would have to say, the work was done well in almost every way.

Canada then became equipped with its first integrated federal energy statute. The *Act* respected provinces' resource ownership and was sensibly worded, providing the Board with reasonable flexibility as well as considerable powers. This original statute has been tested and found robust in the energy turmoil of the ensuing forty years. In the present *Act*, the fundamentals of the original Act remain unchanged. That certainly speaks well of the *Act*'s drafters and the politicians and senior officials who instructed them, as well as of the precedents in legislation from which some important elements were drawn, for example early British and Canadian railway law in relation to Part IV of the *Act*.

The Board quickly got to work under the experienced, if unimaginative leadership of McKinnon. Experience, rather than imagination, was what was needed and McKinnon had it in spades from his time with the Alberta Board. There was a large backlog of work since new gas export approvals had been suspended for nearly three years. Within three weeks of proclamation, the Part VI Regulations were issued and the first hearing order, GH-1-59, appeared to deal with, *inter alia*, "applications by TransCanada PipeLines for certificates of public convenience and necessity under Part III and for licences under Part VI of the Act."[2] The hearings took place between January 5 and February 12, and the recommendations to the Governor in Council arrived on 2 March 1960.

Those first hearings under Parts III and VI held in the early months of 1960 set the stage for the Board's workman-like gas-regulatory activity through the rest of the decade: regular, no-fuss hearings, which followed procedures, that in their essence are unchanged today and have served all of us well. Large-volume omnibus gas export applications by the bundled-service pipelines were dealt with every few years — the next one was in 1965 — together with expansions of related facilities to serve growing domestic markets as well. It was not until 1969 that the Board started wondering aloud how to allocate gas among exporters if the quantities of gas were insufficient to meet the quantities proposed for export, and also to ponder the question of the effect of rising export prices on Canadian consumers.

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1 *National Energy Board Act*, R.S.C. 1959, C-46.

2 *National Energy Board Report to the Governor In Council — In the Matter of the Applications under the National Energy Board Act* (Ottawa: National Energy Board, March 1960) at 1-1.

In dealing with gas exports, the Board followed the principles laid down by the Dinning Commission in 1949,[3] as adopted in modified form by the Alberta government and the Alberta Board in the 1950s. The Dinning Commission outlined that domestic requirements should have priority over export demand, while recognizing that exports (read "removals" for Alberta) were important to the economic growth of the producing and pipeline industries and to the provision of gas supplies to domestic markets, such as the B.C. lower mainland. The days of mandated surplus are long over, but I like to remind Alberta audiences that this was an Alberta, not a federal invention. Dinning recommended a fifty-year reserve set-aside and Mines Minister Tanner confirmed to an American audience in 1950 that this was Alberta's policy to meet its domestic and industrial needs. There must have been some relief all round when, a little later, the Alberta Board recommended retaining a rolling thirty-year supply — industry at that time was recommending twenty years.

This rolling thirty-year approach was in effect adopted by the NEB at McKinnon's instigation, by means of the "25A4" formula, that is, to protect with proven reserves twenty-five times the fourth forward year's forecast for domestic requirements. During this period of rapid discovery, development of large gas fields, pipeline financing and gas sales contracting based on twenty-five year terms, "25A4" did not pose a major practical regulatory burden on the growing western industry. It was not until ten years later that the supply shoe began to pinch within this regulatory constraint.

D. THE GREAT LAKES INCIDENT

Before leaving gas exports and pipeline matters, I should mention the one major *contretemps* of the 1960s, namely the 1966 TCPL-Great Lakes decision. After hearing an application, which was contested by northern Ontario interests, in the summer of 1966, the Board granted certificates and licences to enable TCPL to support the Great Lakes project. For the first (and last) time, Cabinet refused GiC approval for an NEB-recommended certificate. It did so on the grounds that the Great Lakes project could frustrate the purpose for which, with federal government financial support, TCPL had been built; namely, to be the "chosen vessel" to supply eastern markets by an all-Canadian route. There followed a confused period of industry and Alberta lobbying. The denouement was achieved by Thanksgiving. It involved the NEB adding to the new licences a condition respecting an agreement whereby TCPL undertook to preserve the status of its line through northern Ontario as the main line for delivery of western gas to eastern Canada. The project then got underway, albeit six months later than its sponsors had hoped. It is of interest that, in the controversy following the initial certificate denial, the government of Quebec supported the American route. In the "lessons learned" department, it is clearly more trouble than it is worth to veto an NEB decision made after a public hearing. Echoes of this experience may have been heard down the corridors of time in relation to the government's December 1997 Sable decisions.

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[3] Natural Gas Commission, *Inquiry into Reserves and Consumption of Natural Gas in the Province of Alberta* (Edmonton: King's Printer, 1949).

III. THE NATIONAL OIL POLICY: CARRY A BIG STICK

The Board's major preoccupation in its first decade was with oil matters of a non-regulatory nature. Remember there was at the time no federal energy department. As a point of interest, there was (to my knowledge) no energy department in any non-communist administration anywhere, except the United Kingdom. The NEB was the government's only source of energy policy advice: following a Borden recommendation, the NEB absorbed the Energy Studies Section of the Department of Trade and Commerce. Remember too, that oil completely dominated the petroleum industry in revenue terms.

In its 1960 annual report the NEB indicated that "a great deal of time of the Board was devoted to the development of national oil policy."[4] An unpublished report was made to the government that fall and in February 1961, the Minister of Trade and Commerce, Mr. George Hees promulgated the National Oil Policy ("NOP") in the form of a two-page typewritten statement to the House of Commons.

Essentially, the policy would foster the development of western oil production by encouraging exports, thanks to the "overland exemption" from the United States Mandatory Oil Import Control Program ("MOIP"), which Canada had negotiated in the spring of 1959 and by ensuring that national oil product needs west of the Ottawa Valley Line would be met substantially with Canadian crude oil. The expectation was that demand increases would flow initially in approximately equal proportions from these two sources. The Board was assigned the responsibility of invigilating the NOP and reporting periodically to the government on its progress. The government spoke softly, but carried what in those days was a big stick: the threat of NEB oil import licensing upon proclamation of Part VI as being applicable to oil.

The NOP was an excellent compromise. It blunted western pressure, embodied in the newly formed Independent Petroleum Association, for an oil pipeline to Montreal; it left the Quebec and Atlantic markets free access to low-cost foreign oil for their refining and industrial needs; and, while Ontario consumers accepted some oil-supply cost burden, they benefited by large new supplies of relatively low-cost western natural gas. The NOP worked successfully for a dozen years. It saw the Canadian producing industry through a difficult period of severe international competition, without unduly burdening the consumer.

IV. ECONOMIC REGULATION: WALK SOFTLY

What about economic regulation of pipelines during the 1960s, regulation of a sort that Borden had recommended that the BTC be mandated to do? One certainly gets the sense from the Board's reporting during the decade that it wanted nothing to do with actively setting pipeline tolls. The 1960-61 Report stated: "no formal action was taken

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[4] *Report of the National Energy Board for the Year Ended 31 December 1960* (Ottawa: National Energy Board, 1961) at 2.

by the Board in respect of its functions under Part IV of the Act,"[5] and in the 1965 Report: "the Board continued its financial scrutiny, accumulated knowledge, but no requests were received for a public hearing on rates and the Board did not consider it necessary to instigate one on its own initiative"[6]; then in 1967: "While it has not yet been necessary to hold formal proceedings with respect to the regulation of rates, tolls and tariffs ... there continue to be frequent discussions on rate matters between the Board and companies under its jurisdiction and discussions with other interested parties";[7] and by 1968, it "continued its surveillance ... no formal proceedings were held ... but it appears likely that rate hearings will be necessary in the near future."[8]

V. SAFETY

The Board took the matter of pipeline safety very seriously from the start. It had investigated a major TCPL failure near North Bay in 1960 and reported that year that it was studying the matter of pipeline steels and pipe fabrication processes with the federal department of Mines and Technical Surveys.

It was also concerned to improve its understanding regarding oil and gas supply and to that end opened a small Calgary office in 1967.

VI. ONE PERSON'S VERDICT ON THE SIXTIES

The picture one gets of the Board in the 1960s is of a growing, working, learning organization, exercising forebearance in the use of its considerable powers and cooperating closely with the regulated industry and with sectors such as eastern Canadian refiners, that could be subject to regulation if they did not work to meet government policy objectives which the Board itself had formulated.

Another impression one gets is of a Board that was, at least by today's standards, overly involved on the policy side of the house. For example, the Chairman was a member of a task force on northern development, studying the feasibility of oil transportation from the North by pipeline and markets for northern oil. This was despite the fact that the Board would have to deal with any application for a northern oil line which might later have been made. Routinely, the Board would forward its recommendations to the government on the issuance of pipeline certificates and accompany those recommendations with advice that, as a matter of policy, they should be approved.

McKinnon retired in 1968 after twenty years as Chairman of the Alberta Board and the NEB to become chairman of Consolidated Pipelines, Northern Natural's Canadian

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5 *Ibid.* at 10.

6 *Report of the National Energy Board for the Year Ended 31 December 1965* (Ottawa: National Energy Board, 1966) at 7.

7 *Report of the National Energy Board for the Year Ended 31 December 1967* (Ottawa: National Energy Board, 1968) at 22.

8 *Report of the National Energy Board for the Year Ended 31 December, 1968* (Ottawa: National Energy Board, 1969) at 21.

subsidiary — there were no post-employment guidelines in those days. One of his legacies was the "sausage-link NEB pipeline," which is a few hundred feet of steel connecting Hudson Bay Oil and Gas' (now Amoco's) Rangeland system with Continental's Glacier pipeline in Montana. *Nota bene* that Rangeland was exclusively an export pipeline with no delivery points in Canada. Can anyone, I wonder, find an analogous approach in any other area of federal-provincial jurisdictional dealing? Dr. Bob Howland, who had been a Borden Commission member, and "father of the NOP," then moved up from Vice-Chairman.

Timing may not be everything, but it is important in relation to whether a chairmanship is adjudged successful. McKinnon chaired the Board well in a formative but rather tranquil period, when federal policy was able to comfortably accommodate western oil and gas ambitions without risk of prejudice to its power base in central Canada. McKinnon performed ably and earned the respect of the Ottawa establishment, although he was very much an outsider to it.

Dr. Howland, with his London School of Economics Ph.D., good ties in the bureaucracy, and excellent record as originator and guide of the NOP should have been a success. But Howland had an unhappy chairmanship retiring somewhat unexpectedly in mid-1973. His problems were many, some of them he made for himself. He was constantly at loggerheads with the nascent federal energy department, created in January 1966. He earned the enmity of its first Assistant Deputy Minister by calling on his old boy network to starve Energy Mines and Resources' energy sector of funds. The NOP, his pride and joy, started to come apart in 1970 under the pressure of low-cost gasoline imports and his efforts to shore it up, embarrassed the federal Liberals *vis-à-vis* Mr. Bourrassa's newly elected Quebec *rouges*. It fell to Bob Howland to deal with the first signs of the apprehended gas "shortage." His efforts to "talk up" gas export prices failed, exposing the then-minority Liberals to unwanted pressure from the NDP.

VII. THE PHONY WAR, 1970-72

Flows of foreign-refined gasoline across the Ottawa Valley Line led the government, in 1970, to proclaim Part VI of the *Act* in respect of oil imports and exports and to bring gasoline imports under NEB licence. The related Part VI regulations were struck down by Jackett J. of the Exchequer Court on an appeal by Caloil, a Quebec-based retailer fronting for the New England Petroleum Corporation. In their initial form, the clumsily designed regulations had the effect of restricting trade within a province. They were immediately changed to provide that the applicant for an import licence had to specify where the gasoline was to be consumed. This was upheld on appeal.[9]

In the area of natural gas, the Board faced up to what it described as "a seemingly insatiable export demand." GH-4-69, another gas omnibus, was to be a watershed proceeding. It ran for fifty-four sitting days, from late November 1969 to the end of March 1970, was reported in August and the GiC responded in September 1970. The

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[9] *Caloil Inc.* v. *Attorney-General of Canada*, [1971] S.C.R. 543, 4 W.W.R. 37, aff'g [1970] Ex. C.R. 512, 15 D.L.R. (3d) 177.

Board found the gas surplus to be 6.4 trillion cubic feet against applications for 8.9. Following a tense no-holds-barred battle between "the chosen vessel," TCPL, and the newcomer, Consolidated Pipelines, the Board chose the project that combined domestic and export requirements and denied Consolidated's applications for certification of a pipeline headed towards Chicago and for a related export licence. During the hearing, Alberta changed its position from neutrality to actively urging that all the applications be approved. The NEB's decision did not seem to faze the Alberta Socreds. However, when Mr. Lougheed's renewed Progressive Conservatives came to power, the denial of Consolidated and with it the opportunity for competitive buying of Alberta gas became one of Premier Lougheed's chief grievances with "Ottawa."

On the oil side, the appearance of things in the 1970-72 period was of international energy abundance, notwithstanding the 1970 Libyan Occidental nationalization crisis. While Canada was defending her oil market against low-cost gasoline imports, the U.S.A. was doing the same *vis à vis*, crude oil supplies from Canada, bringing them under the scope of the MOIP in March 1970. In the Board's words, "[t]his ended the arduous and latterly impossible task of voluntarily limiting exports to east of the Rockies to levels agreed-to by the governments in 1967."

But American quotas were repeatedly increased under pressure from land-locked importers for whom Canadian oil was a most attractively priced feedstock. Export demand within a couple of years became so strong that the Board found itself jawboning the industry to try and ensure that Canadian refiners' needs would be met in full. Suasion appeared to have failed when Shell Canada advised the NEB in February 1973 that it could not acquire enough crude oil to meet the needs of its Canadian refineries for the following month. The Board recommended that the government bring crude oil exports under NEB licence, which it did effective 1 March 1973. Aggregate output was unaffected, but its distribution was adjusted to ensure first the needs of Canadian refiners. The producing provinces seemed initially unconcerned. However, six months later, the federal Government, as part of its "cost of living measures" announced just after Labour Day, that it had asked refiners not to further increase the price of Canadian crude oil, that had risen by one dollar to $3.80 per barrel in the previous twelve months. Fine, but the Part VI regulations required that the Board find the price of exported oil and gas to be just and reasonable. Rising international prices in the run-up to the Yom Kippur war meant that frozen Canadian oil prices were increasingly out of kilter with available prices in the export market. Effective on 1 October 1973 an export tax was applied to recover the difference. The energy wars had begun.

VIII. CONCERN ABOUT THE NATURAL ENVIRONMENT

The record shows that pipeline safety has been a concern of the Board since its earliest days. However, the same could not be said of the environment and some pretty rough justice appears to have been meted out by the Board in the 1960s. The Board at that time seemed to have underestimated the importance of dealing properly with pipeline landowners. That, and the tough tactics of an oil pipeline company in southern Ontario, gave the company and the Board a black eye. However, its foremost critic in

that region, the late Captain Peter Lewington, acknowledges in his book *No Right of Way*,[10] that the Board made a "quantum leap" by the late 1980s, after which the Board had a comprehensive approach to good practices in environmental protection — he was referring principally to the Board's treatment of owners of arable land.

More generally, in regard to dealing fairly with environmental concerns and progressively improving environmental protection in the construction and operation of pipelines, the Board's record is a good one. From the early 1970s there was specific attention to environmental matters and the Board had able staff to advise it. The Board is now the most capable and experienced federal government agency in terms of encouraging, receiving, assessing and acting on environmental evidence. In my view, it should be left alone to do this job, acting in part within the framework of policy, statute and regulation created by the environment side of government and in part using its own tools and applying its own sage judgment.

IX. THIS WAS NO-ONE'S FINEST HOUR

It would be painful in the extreme to review in detail the energy politics of the next eleven years. The *dramatis personae* are still remembered. The aggressive-MBA style Lougheed governments of Alberta, with energy ministers Dickie, Getty, Leitch and Zaozirny staunchly, and in my view reasonably, upholding their province's interest. Successive Trudeau administrations in Ottawa were vulnerable in critical periods to the NDP and its "corporate rip-off" sloganeering. This reduced further its capacity to take economically rational energy pricing actions. Ontario's Bill Davis accepted, but without grace, the federal government's largesse at Alberta's expense. Quebec acted similarly, all the while aligning itself with Alberta's provincialist stance, at least until the night of the constitutional long knives.

In retrospect, the petroleum industry was, at first, strangely passive. It had come through a dozen years of very strong growth, thanks largely to the NOP. There seemed to be grounds for trusting the Liberals. After all they had taken the industry's side in relation to oil exports and had invoked industry's help through the National Advisory Committee on Petroleum in the aftermath of the 1968 Prudhoe Bay discovery which was seen as threatening markets for western Canadian oil. Leadership was more in the hands of the heads of the integrated majors, who were said to "know their way in Ottawa," rather than with the rank and file through their petroleum associations. When war broke out with the 1973 oil export tax, the industry brought little to the table by way of innovative policy thinking or measures to ease federal-provincial tensions, perhaps because its attention was all on the huge potential and actual cash flows which were materializing even with Canadian prices below world levels. The contrast with the period from the early 1980s onwards is striking.

The Board was by now chaired by Mr. Marshall Crowe, a distinguished public servant (External Affairs, PCO, CDC) who had some knowledge of NEB matters from

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[10] P. Lewinton, *No Right of Way: How Democracy Came to Oil Patch* (Ames: Iowa State University Press, 1991).

his earlier membership of the interdepartmental energy committee. Crowe moved at elevated levels outside the Board and seemed prepared to leave the management of gas matters to his fellow Manitoban and vice-chairman, Mr. Doug Fraser, and the management of oil matters to Mr. Jack Stabback, formerly the chief gas engineer of the Alberta Board, who in 1964 became chief engineer at the NEB, and who had become a Board member in 1968.

X. THE NEB'S RESPONSE TO THE "CRISIS"

Partly on its own motion, and partly with encouragement from the government, the Board moved aggressively on several regulatory fronts in response to the apprehended energy crisis.

Oil exports, which had peaked at over one million barrels daily in 1973[11] were progressively throttled back, first to eight hundred thousand in 1975[12] and, by late 1977,[13] after the opening of the NEB-certificated, government supported Sarnia-Montreal oil line, to below three hundred thousand, or less than one-third of the level of four years previously. Again, industry response to this regulatory development was curiously muted. This was partly because lower volumes were being more than offset by higher prices as Canada moved, with a lag, towards world levels. It was partly because the industry itself was publicly presenting pessimistic outlooks as to the future supply of crude oil from conventional areas and sources. The Board held annual or biennial inquiries into Canadian oil supply and requirements in the mid-1970s. Based on careful analysis of industry and government submission, the forecasts of long-term demand turned out to be wildly optimistic and of supply, unduly pessimistic. Not only government, but industry too seemed from the start to be strangely unwilling to recognize that price could strongly modify what seemed to be ineluctable supply and demand trends.

Gas exports authorized under subsisting licences continued to flow and approached one trillion cubic feet in each of several years. But with no further "surplus" available to be disposed of, no applications were made for additional exports. The Board, however, undertook a careful review of the supply and requirements of Canadian gas. This was based on hearings chaired by Crowe and held between November 1974 and March 1975. The Board's report, issued in April of the same year, warned of supply shortages on the Westcoast system in the 1973/74 gas year and that such shortages could occur on other systems as early as 1975/76. Northern frontier gas was seen as necessary to meet export commitments as soon as it could be brought south, and to meet domestic commitments from the mid-1980s. Witnesses had forecast continuous rapid growth of Canadian gas demand, reaching in 1995, 3.6 trillion cubic feet (Foothills and Arctic Gas) to 5.6 trillion cubic feet (CPA). Actual Canadian consumption in 1995 was about 2.5 trillion cubic feet. Although the report's outlook

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11 *1973 Annual Report of the National Energy Board* (Ottawa: Information Canada, 1974) at 77.

12 *National Energy Board Annual Report, 1975* (Ottawa: Information Canada, 1976) at 61.

13 *National Energy Board Annual Report, 1977* (Ottawa: Minister of Supply and Services, 1978) at 70.

was hopelessly wrong, it drew two sound conclusions: deliverability, not reserves, was what was needed to assure supply, and deliverability could be encouraged by higher prices. In retrospect, it is clear that the gas supply and demand situation was becoming more favourable even as the report was issued, thanks to the effect of higher domestic and export prices on producers' cash-flow expectations and the fact that the industry had a bank of gas development prospects which could be promptly drilled. In fact, this was the beginning of the "gas bubble" which was to trouble the industry through the late 1980s.

On the score of gas export pricing, the Board had, since late 1970, been under a requirement written into its Part VI regulations to examine the justness and reasonableness of gas export prices and to report to the GiC. A hearing, GHR-1-74, was held in the summer of that year. The Board reported that it had not been able to persuade exporters to increase prices. It found that there was a lack of reliable gas and energy price data to determine the commodity value of Canadian export gas. The U.S.A. *Natural Gas Act*[14] limited prices of American-produced gas to historic cost. It was therefore with a sense of frustration that the Board recommended to the GiC that the price of all export gas at the international boundary be increased to $1.00 per million cubic feet effective 1 January 1975. This level compared with assessed contractual export prices ranging from $0.38 at Emerson, to $0.71 at Kingsgate and with comparable values in the U.S.A. of, from $0.54 for American gas in the midwest to $2.05 for world oil in Minnesota.

Canadian gas export pricing from then on tracked commodity values in the export markets served, with particular regard to oil-price equivalents. Eventually, the price was driven up to the infamous U.S. $4.94 figure in 1981. The flowback to Canadian producers of the difference between the domestic and export price provided an additional, although heavily taxed, source of funds for further investment in gas development accentuating the "gas bubble" as time went on. The NEB's analysis seems crude in retrospect and its resulting recommendations to government may have been aggressive, although less so than those of energy department officials when the final responsibility for setting export prices was taken over by the Energy, Mines and Resources under the NEP. And in some markets, the pacific northwest for example, the effects of very high Canadian prices, undiluted by lower-priced American supplies, were disastrous for gas demand.

All in all, though, the Board's actions relative to gas were eminently sound from a national and regional point of view. Without them, prices would have remained at the very low contractual levels stemming from 1960s negotiations which provided for very slow arithmetic escalation — a quarter or half a cent a year. Canadian gas would have been absurdly underpriced in export markets. Demand at that price could not have been met. Some method of rationing supplies would have been needed. Domestic prices could hardly have been raised while exports stayed at contractual levels. And Canada, the royalty owners and gas producers, would have foregone enormous opportunity-price revenues with a disastrous effect on gas development in Canada. The Board has earned

[14] *Natural Gas Act*, 15, USC 53 Stat. 828.

its keep many times over, just on the score of the revenues created by its gas export price intervention from 1975 onwards.

Another comment which applies at other points in the story is that the lack of energy market information, particularly outside the industry, was a constant handicap to governments and regulators. It created situations of uncertainty which bred poor decision-making. The contrast is striking with today's abundance of industry data from many diverse sources providing the public, industry, governments and regulators with knowledge that markets are working, and working in predictable ways.

XI. PIPELINE TOLL REGULATION AT LAST

The Board's eventual entry into the field of active pipeline regulation, after years of hesitation, was precipitated by, of all people, TCPL. In 1969, the company asked the Board to bring it under regulated tolls. The process was a long one. It started with the Board seeking the advice of a public accounting firm and continued with the Board retaining the Ottawa law firm of Soloway Wright, in effect, Mr. Hyman Soloway, to run the hearing, which was held in two parts, dealing respectively with principles of regulation and then with the application of those principles to TCPL. It ended in 1973 with TCPL being awarded a substantial increase in tolls. Mr Soloway was later to be lead NEB counsel in the northern pipeline hearings.

A great deal could be said about that first NEB rate hearing. Phase one involved seventy-eight sitting days: the report, released in December 1971 was only about eighty pages of typescript. The Board admitted somewhat disarmingly, that "it is not possible, within reasonable compass, to set forth all of the reasoning, nor all of the findings, which underlie the conclusions set forth herein."[15] Phase two sat eighty days and the related reasons were of about the same length as the first report. The Board unsurprisingly refused to allow TCPL an inflation-adjusted rate base, but established the historic cost basis. The first return-on-equity award was 9 percent and the first toll-design was a modified fixed-variable one with one-third of the fixed costs going in the commodity charge.

A. AN UNSPOKEN REGULATORY COMPACT AND ITS CONSEQUENCES

The TCPL tolls hearing launched the Board into more than two decades of detailed pipeline-rate regulation, more often than not by means of adversarial public hearings. A great deal could be said about this era in the Board's history, an era which started to come to an end with the 1988 Guidelines for Negotiated Settlements (updated in 1994) and then with the path-breaking Interprovincial Pipe Lines ("IPL") long-term incentive settlement of 1995. Limitations of time and space do not permit even an attempt at comprehensive comment and it would be churlish in the present company to comment on the economic spin-offs that this regulation created for a number of sectors.

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[15] *National Energy Board Reasons for Decision in the Matter Under Part IV of the National Energy Board Act* (Ottawa: National Energy Board, December 1971) at 7-1.

From a producer standpoint, NEB rate regulation probably resulted, over the period as a whole, in lower-than-otherwise tolls. The calculus is of course a complex one and, in the last analysis, impossible to complete.

On the one hand, and directionally rather than quantitatively, the pipelines' revenue requirements were constrained by regulation. This constraint was effected more by the rather low equity ratios of 25 percent to 35 percent that characterized the period than by the generally modest approved rates of return on that equity. I suggest that this reflected an unwritten compact mainly between the producers and the pipelines, under which the former proposed and the latter accepted those low equity ratios in exchange for regulatory provisions that reduced the pipelines' risks. I am thinking here of a panapoly of risk-reducing measures: interim tolls, deferral accounts and the seldom disallowance of capital expenditures that tended to make pipeline investments and operations a very low-risk activity for twenty years. I do recognize that deemed equities of about 30 percent for gas lines owe something to the fact that TCPL came in with an actual capital structure that was about 19 percent equity, 13 percent preferred shares and 68 percent debt.

On the other hand, regulation did very little to effectively discipline the pipes to efficiency in terms of their investments and operations, both in engineering and economic efficiency. I am sure that management thought that they were efficient and they probably were by the utility standards of the day. But in the "cost-plus" atmosphere fostered by regulation, there probably was considerable "gold plating" of facilities by the engineers. There was some incentive to over-invest and there are examples of premature investment like TCPL's "North Bay short-cut" line of the early 1980s, built in anticipation of a much larger Trans-Quebec & Maritimes ("TQM") market than immediately materialized. There was no upside for the pipes from ensuring the best economic use of facilities. Pipeline-services-marketing innovations which we have seen in recent years were therefore simply not produced. I would hasten to add that, prior to about 1985 there would probably not have been a market for such innovations because the great bulk of capacity was reserved by local distribution companies ("LDCs") who, like the pipes, did not face a commercial incentive to minimize costs.

On balance, I would judge that, in overall economic terms, the Board's rather parsimonious financial awards had a greater effect in lowering rates than the lack of efficiency incentive had on raising them.

Another effect of regulation was that it created an environment in which the energy community, or at least governmental members of that community, felt an obligation to see to it that the pipelines were looked after. I cannot of course demonstrate this factually. I suggest that it was a broader manifestation of the regulatory compact alluded to above. It found reflection in the fact that the Canadian pipelines were held harmless to a very large degree during the early years of gas commodity deregulation. This was when their American cousins were subject to extreme stresses in connection mainly with take or pay. The American pipelines' equity returns were depressed for years. More than one pipeline went bankrupt. It was a period of mergers and

acquisitions that saw the emergence of such giants as ENRON. Meanwhile in Canada, take or pay was something of a non-issue thanks to arrangements worked out by what I would call the Canadian collectivity, such as TOPGAS and the TOPGAS levy. I think you could see the same pattern in such regulatory areas as the "contract demand" approach to dealing with the double demand charges issue. The extreme turbulence experienced by American pipelines in connection with the extended "gas bubble" and the early deregulation years was almost entirely absent in Canada where pipelines' earnings from regulated operations were steady throughout the period. One result was that they were able to finance large expansions, despite the low equity ratios I have referred to, when markets for Canadian gas picked up from about 1990.

B. THE ENERGY EMERGENCY: LIFE IN THE TRENCHES

After TPCL, the other major pipelines were successively brought under formal NEB rate regulation, starting with IPL among the oil lines. This followed IPL's application, at the invitation of the government, for a Sarnia-Montreal pipeline. The application was heard in May 1974, but adjourned because of route problems experienced mainly in Quebec. Although the application reopened in October, it adjourned again because of concerns about inadequacy of long-term western crude supply. It resumed in April 1975 and was reported on positively a month later after the company had negotiated the well-remembered deficiency agreement with the federal government.

The Department of Energy, Mines and Resources had been created in 1966 but, partly because of the guerrilla war with NEB, it was incompletely staffed. This resulted in much of the initial burden of dealing with the apprehended emergency falling on the NEB. For example, the Technical Advisory Committee on Oil Supply ("TAC") was chaired by Board member Mr. Jack Stabback and staffed by NEB employees and officials seconded from oil companies. This was of course prior to the creation of the Energy Supplies Allocation Board ("ESAB") in 1975, which was initially chaired by former NEB member and Associate Vice-Chairman Mr. Neil Stewart.

I think conceptually there may have been problems associated with the Board's responsibility to assess *in camera* the oil products supply situation, using data generally supplied on a confidential basis by the major refiners, and simultaneously having the job of licensing oil products exports. However, this approach made some practical sense, even if it offended principles of natural justice and it was, in the circumstances of the time, the only way to go.

C. STAFFING AND BUDGETS

I would like to note that, at the end of 1973, the Board had a staff of about 280 and six full-time members, the same as it had at the end of my term twenty-four years later. Also, the 1973-74 budget of $6,148,000 was, in real terms, about $25 million, only marginally less than it is today. I do not think you will find many other organizations within government, having important ongoing responsibilities, which are today approximately the same size as they were a quarter-century ago.

XII. STUDIES AND YET MORE STUDIES

The period of 1974 to 1984 was, among other things, the decade *par excellence* of "the study and report."

The Board brought down its first oil report in 1974, and continued with such reports almost annually for the next half-dozen years. These reports were based on careful public examination of evidence supplied by major companies, who were well aware of the policy implications of their pessimistic prognoses. The Board, advised by industry, more or less gave up on a new conventional oil supply from the western basin and placed the country's oil supply hopes very largely on the north and on oil sands. By 1978 it was advising that light crude oil exports could only be maintained at the very modest rate of 55,000 barrels daily for three further years. Recall that, five years previously, they had approached one million barrels a day.

In the area of natural gas, after the 1975 scare report, which had the Ontario government contemplating legislation to allocate scarce supplies of gas within the province, the outlook was changing. In February 1979, the Board reported that there was again gas surplus to Canadian requirements; about 2.1 trillion cubic feet were available for a period of eight years. Some of you may recall that this finding and this volume provided the basis for the pre-build project.

XIII. THE NORTHERN PIPELINE — NO GOLD AT THE END OF THIS RAINBOW

The saga of the Northern Pipeline cannot be dealt with here. Enormous efforts were dedicated in the mid-1970s by executives, engineers, environmentalists, economists, politicians, regulators, bankers, investment houses and, yes, lawyers to this project. The NEB strove mightily, from the spring of 1976 to 6 July 1977 when it announced its approval of the Foothills project, to provide a fair, expeditious yet thorough examination of the competing applications. However, all was eventually in vain. The project had a weak American partner (the pre-Williams Northwest Pipeline) and boldly ignored almost every aspect of the operation of markets: it had no supply committed to it; it was hopelessly uneconomic without enormous cross-subsidization by lower-priced southern gas; and it was not financeable without virtually compulsory shipper-participation by increasingly unwilling non-equity-owning other pipes. The only good thing about it was that construction of the northern line was never started. Had it been, the ensuing financial disaster would have been catastrophic for both lenders and borrowers.

XIV. TWO MORE CHAIRMEN

Mr. Jack Stabback became the Board's fourth chairman in 1978, Crowe having resigned to embark on a distinguished new career as an energy consultant, company director and, later, lawyer and Ontario Bencher. Stabback was a tremendous worker who, it was said, would rise at 5 a.m., or earlier, to work on Board reports. He had soldiered on through several oil inquiries and the Northern Pipeline hearing. He was a tower of strength and commanded great loyalty from the Board's staff because they

knew that, whenever special efforts were required, he was prepared to work harder than anyone else. Stabback retired three years later to join the Royal Bank's Global Energy Group.

After an uncomfortably long spell as acting chairman, Mr. Geoff Edge, who had been Vice-Chairman in Stabback's time, was appointed Chairman in mid-1980. Indecision as to the Board's chairmanship and, at times, new memberships is regrettable and avoidable. It is bad for the Board as an institution, discouraging for the people who work there, not good for whoever is eventually appointed to the chair, and it reflects poorly on the government.

Edge was an economist and financial expert who had learned his trade in the Canadian chemical business based in Montreal. He was probably uncomfortable with the statism of the NEP. He was intensely interested in, and supportive of major energy projects. It was said that the Board's espousal for some years of the normalized approach to accounting for income taxes for rate purposes was intended to provide financial strength to Canadian pipelines in relation to energy project needs, particularly in the frontiers. It is also said that the pre-build was one of Edge's ideas. If the political climate had allowed it, Edge would have been a fine, imaginative leader of energy market deregulation and modernized regulation of pipelines.

XV. THE PRE-BUILD

In 1979, the Board had inquired into the financeablility of the Northern Pipeline. It found that there were no insurmountable obstacles, provided that, through regulation, there could be a giant cross-subsidization of the Northern Pipeline by much of the rest of the USA gas business. It also found the pre-build to be critical to financing of the northern portions. The Board reported this in 1979 and the newly elected Liberals approved the pre-build in July 1980, having received what I recall were described as cast iron guarantees that the whole project would be built.

Pre-build construction took place in 1980 to 1981. It was carried out near the peak of the early 1980s inflation and its 635 kilometres cost about $655 million. Adjusted for the consumer price index, that suggests unit (per kilometre) costs nearly double in real terms those which established pipelines were paying for looping of existing, similar-diameter systems in 1996-97.

The initial gas supply for the pre-build was approved as a result of the 1979 gas omnibus hearing, another creation of the commodity-regulation era where boards and commissions rather than markets allocated available gas supplies to shippers and markets.

The Board went into the hearing thinking that, for the first time since 1971, there was "surplus" to allocate — about 2.1 trillion cubic feet which increased as a result of the evidence to 3.75. Nearly half of the available surplus went to Pan-Alberta with full volumes for five years, then reduced by 25 percent a year over the following four years. Part of the reasoning for favouring Pan-Alberta was "the public interest in fostering the

financing of the Alberta Natural Gas Transmission System, providing deliveries for several years before Alaska gas flows."[16]

For me, it is an enduring mystery why Canada should have been *plus royale que le roi* in regard to a northern pipeline. If Alaska were owned by, say, Indonesia, would we have been so enthusiastic to provide a "land bridge" to the lower forty-eight States for her exports, which would compete against Albertan and other western Canadian gas?

A. DEFINITIVE STUDIES ARE ALMOST NEVER THAT!

The report on the Northern Pipeline,[17] the successive oil and gas supply and demand reports through the 1970s, and the definitive studies on this and that all point to the conclusion that definitive studies are almost never that. I suggest that in almost every field of human endeavour you can expect that what are proclaimed to be definitive works on the economy, energy, environment, population growth, food supply, perhaps even climate change, will be found to be misdirected, if not downright wrong, not long after they first see the light of day. The classic example surely is and will likely remain the National Energy Program ("NEP"). Its policy prescriptions, which had such disastrous effects on the oil and gas industry, the national economy, federal-provincial and international relations were essentially predicated on ever-rising international oil prices. It was a supreme irony that spot international oil prices probably peaked on almost the very day the NEP was announced.

XVI. THE FIRST ALL-ENERGY REPORT

The Board's first comprehensive, all-energy supply-demand report[18] was based on public hearings which started in Vancouver in November 1980 — you will recall that the Board is currently embarked on its seventh version for release in the mid-1999. Again, the input was derived largely from evidence provided by provinces, associations, corporations and individuals. This time, the almost-universal previous pessimism was relieved by some oil-supply optimism which assumed "corrected" fiscal arrangements. I read this as reflecting some impatience by the Board at the severity of the NEP measures and an attempt to get the policy people thinking on more realistic lines.

XVII. THIS SHOW DID NOT GO ON

The 1960s and early 1970s had been a period of remarkable growth in Canadian oil and gas supplies and markets. This led to steady development of pipelines and exports. It is striking in retrospect to note how, from the early years of the apprehended energy

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16 *National Energy Board Reasons for Decision in the Matter of Applications Under Part VI of the National Energy Board Act* (Ottawa: Minister of Supply and Services, 1979).

17 *National Energy Board Reasons for Decision — Northern Pipeline Volume 1, 2 and 3* (Ottawa: Minister of Supply and Services, June 1981).

18 *Canadian Energy — Supply and Demand 1980-2000 — National Energy Board* (Ottawa: Minister of Supply and Services, June 1981).

crisis real projects, that I mean real money-making commercially inspired projects, receded. I would not count the IPL Montreal extension or the pre-build in the latter category.

One excellent, imaginative and surely profitable project was IPL(NW) which gave Canada our first and only true northern pipeline from Norman Wells, N.W.T. to Zama Lake, Alberta. The project gave everyone involved a good learning experience in terms of environment, construction and operation of such a line.

For the rest, real projects were replaced by the frenzy of energy-regulatory-administrative activity. One gets a flavour — an unpleasant one — of this by reviewing the Board's annual reports to the GiC on oil import and export licences, recording the hundreds of licences which were extant at any one time for straight exports, exchanges and exports for re-importation. No doubt the Board and its staff did a thorough and careful job in this area, but experience shows that it was largely a waste of time and money and that oil supply for Canadians could have been much better secured by the operation of the market.

Real projects were also replaced by chimeras that, in some cases, were oriented more towards the perceived needs of governments than towards the needs of the market. Examples include: TCPL's mid-1970s flirtation with coal gasification; the Arctic Pilot Project; the Lorneterm Tenneco liquified natural gas ("LNG") project; various projects by Rimgas, Carter Energy and Dome for LNG exports to east Asia; the "M" of TQM, which would have seen Alberta gas reaching Halifax; and the concept of bringing overseas and Alaskan oil into the interior of the continent via a reversed TMPL. Happily, most of these projects died without causing too much regulatory wheel-spinning.

A. RECESSION ALL-ROUND

The economic recession of the early 1980s, the NEP-induced oil and gas recession, and the effects of falling energy prices were reflected in the NEB's findings that there were no "real" new projects coming along and were manifested in the difficulties encountered in marketing the available exports of oil and gas. All this is reflected in NEB's reports from that era, recording depressed U.S.A. gas markets, shut-in domestic oil, ideas of "incentive pricing" of gas exports, and the difficulty of keeping even our very limited exports of light crude oil flowing.

B. REGULATORY REFORM

The Board's thoughts were moving in this direction under Geoff Edge's chairmanship in the early 1980s. Early in the decade the Board was commenting on the need for it to provide reasonably expeditious treatment of applications and in 1984 the Rules of Practice and Procedure were simplified and provision made for waiving of rules that were found not to be applicable.

XVIII. THE RELEASE OF THE MARKET

Regardless of one's personal retrospective on the Mulroney governments, fairness dictates that they must be assessed as having been profoundly and positively important in terms of energy policy, including regulatory policy and Canada-USA and North American free trade.

The P.C.'s energy intentions were set out in the Prince Albert declaration of Spring 1984. The fourteen months from their September 1984 landslide election win to the Halloween Agreement of 1985[19] wrought the most profound and longest-lasting changes in the federal governmental framework for Canadian energy.

Tribunals like the NEB have to take account of the policy environment created by the government of the day, while observing strict independence and objectivity in regard to treatment of specific applications. To do otherwise would be to thwart the operation of the democratic process. The Western Accord[20] and the Halloween agreement were needed for the Board to clear away the regulatory debris accumulated over the previous dozen years and set the industry on a course towards deregulation of commodity markets and eventual light-handed regulation of facilities owned by entities which retain market power, generally because of the natural monopoly characteristics of those facilities.

A. STEPS ON THE WAY

As the Virginia Slims ads used to say "You've come a long way baby!" from the heavily regulated system of the mid-1980s to today's: (1) almost completely free markets for the oil and gas commodities; (2) pipeline open-access; and (3) pipeline rate regulation by long-term negotiated settlements embodying incentive features.

1. FREE COMMODITY MARKETS

Free commodity markets were achieved domestically in the first place by dropping, effective the first anniversary of the 1986 Halloween agreement, federal-provincial regulation of the price of gas in interprovincial trade. This inflexible pricing regime, initially intended under the NEP to protect consumers and to foster gas market growth, had come to have the nature of a producer price support mechanism as international energy prices had fallen, particularly following the November 1985 downwards break in OPEC pricing. Similar steps had been taken in the summer of 1985, under the Western Accord, to remove controls on domestic oil prices.

More important to the functioning of the market was the redesign of gas export licensing. The Board's first attempt, announced on the day of the great May 1986 Calgary snowstorm, came after extensive public hearings and would have related

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[19] *Agreement Among the Governments of Canada, Alberta, British Columbia and Saskatchewan on Natural Gas Markets and Prices* (Ottawa: Government of Canada, November 1985).

[20] *Western Accord, 1985* (Ottawa: Government of Canada, 1985).

aggregate allowable exports to a critical predetermined reserves to production ratio of about sixteen, below which, the Board felt, security of aggregate gas supply might be jeopardized. Initially welcomed by industry because it would sharply raise the export ceiling, critical examination quickly suggested that this approach would not allow the export gas market to function in the long term. It was yet another variant in the long succession of arithmetic-formula approaches to gas export regulation which started nearly four decades earlier with Alberta's fifty years reserves requirement. At the national level the Board had run the gamut from 25A4 to 25A1 with the last previous variant being a three-way approach involving tests for current deliverability, current reserves, and future deliverability.

In the spring of 1986, the minister of EMR wrote to the Board inquiring about "the actions the Board was prepared to initiate in respect of its natural gas surplus determination procedures, to take account of a rapidly-evolving market environment."

The Board reflected for a while and then designated a one-member panel, with Dr. Peter Miles as project manager, to inquire into and report back on gas export licensing. The hearings which resulted were tedious and none too helpful because of strongly conflicting evidence. However, out of the findings the Board created the Market-Based Gas Export Procedure (the "MBP") which, announced in 1987, has proven to be the Board's most enduring approach to this problem. It has endured because it is flexible rather than formulaic and because its central assumption, namely "that the marketplace will generally operate in such a way that Canadian requirements for natural gas will be met at fair market prices" has been borne out in practice.

The two components of the MBP, public hearings and ongoing monitoring, continue. However, the hearings are now generally held in written form and export applications are dealt with as they are made. The monitoring continues with periodic natural gas market assessments ("NGMA's) and assessments of Canadian energy supply and demand such as the one the Board plans to complete and publish in 1999.

Incidentally, the NGMAs represented a novel and, I believe, successful new venture in NEB published analysis. They have been long on description and assessment of the recent past and sensibly light on prognoses. This approach has helped to educate the Board's public and, I would say, the Board itself about the working of the market and its strongly positive findings have made the MBP increasingly acceptable.

The MBP, together with a national and international energy environment which has been overall favourable from the consumer standpoint, has done what, in the mid-1980s seemed impossible. It has provided the Board with a flexible tool to deal with exports within the framework of an unchanged *National Energy Board Act*; it has been accepted and used by producers and consumers without serious criticism by either side; and it has, for the first time, decontroversialized gas exports in the public and political eye.

While ultimate decision-making at the NEB is the responsibility of Board members, little would have been achieved over the years without a competent staff. Particularly in connection with the creation of the MBP decision, I must make special mention of

Mr. Peter Miles' contribution that was fundamental in terms of identifying and formulating the MBP and convincing members as to its conceptual and practical validity. He was also the brains behind the Board's 1993 incentive regulation workshop which sowed the seeds of profound changes in pipeline regulation some years later.

2. PIPELINE OPEN ACCESS

The first and most significant single step on the road to open access was taken in November 1986, when TCPL was ordered to transport gas owned by a small and struggling ammonia fertilizer producer, Nitro-Chem of Brockville, Ontario. This order left hanging the issue of the double-demand charge. It was dealt with the following year when the Board approved the "operating demand" approach commended to it by Consumers Gas. You may remember that TCPL promptly and unsuccessfully appealed this decision to the Federal Court on the basis that the Board had exceeded its powers. Just as the LDCs had been most unhappy at the Halloween agreement because they correctly saw it as ultimately exposing them to direct export-buyer competition, so the pipelines saw open access, direct marketing of gas as a threat to their way of doing business since the creation. As well, TCPL had a particular concern that open access, direct marketing of western gas would undermine the recovery of its TOPGAS costs and threaten the life of the corporation.

3. NOT EVERYONE WAS HAPPY AT THE DEREGULATION PARTY

One of the themes of Canadian gas deregulation history has been one of policy and regulatory initiatives, being initially opposed sectorally and then being overtaken by private sector initiatives when corporations recognized both the inevitability of what was happening together with the commercial opportunities that events were creating. For example, the Halloween agreement was not received with uniform enthusiasm across the producing sector and the CEO of one major producer for some years deplored the loss of what he saw as price protection against the vagaries of the gas market.

The Canadian pipelines' marketing affiliates were weak performers until their parents bought or bought into more enterprising unaffiliated players. The pipelines were rather slow in exploiting the possibilities opened up by the Board's 1988 Guidelines for Negotiated Settlements and there was limited enthusiasm in the industry at large for the NEB's incentive regulation initiative of 1993 and for the generic cost of capital proceeding two years later.

4. PIPELINE RATE REGULATION

Let me say that, by the time I got to the Board, the tedium of annual or biennial rate hearings for the major pipelines was getting to members. It quickly got to me. If it had not been for the billable hours aspect, it would surely have got to a lot more people in the rate regulation industry.

Looking at the big picture, I tend to see two themes.

First, there was again a desire by the Board to lead the industry, which it did in the area of permitting negotiated settlements and describing the circumstances in which such settlements would commend themselves to the Board. It did this first, as long ago as 1988, following the rejection by the Board of an initial settlement negotiated by Westcoast with some of its stakeholders. Those first Guidelines for Negotiated Settlements, which were defined by Mr. Ken Vollman, then a senior staff member and a fine innovative thinker, were surprisingly little used for some years, I think because of the conservatism, particularly of staffs advising the producer interests. While the door was open, few went through it.

Second, the Guidelines for Negotiated Settlements were updated in 1994 and then, a new industry dynamic took hold as a result of a personal initiative by the senior members of the producing and pipeline sectors. I think particularly of Mr. Doug Baldwin and Mr. David O'Brien on the producer side and Mr. Brian McNeil for the pipelines. I believe the task had been made easier by the Board's further initiative to define a generic cost of capital in terms of both deemed equity and return thereon. Of course not all pipelines used this generic approach: IPL and then TNPL reached separate settlements which did not embody it as Westcoast has now done for its gathering and processing business.

I think these settlements are a wonderful Canadian achievement. They have brought to an end a quarter-century of fractious adversarial public hearings relating to rate matters. They are much more sophisticated instruments of regulation than could have been produced by the traditional processes. They have provided sound incentives for pipelines' managements to optimize the use of their hardware at minimum additional investment. There is significant scope for the pipelines to earn over the generic rates of return which the Board's formula generates. At the same time, they retain sensible limitations on the degree to which these still-quasi-monopolies can exercise market power. They have, in my view, put Canada at the forefront of international pipeline toll regulation, indeed of regulation of natural monopolies in general. Having said all that, I would be among the first to recognize that the extant settlements, which cover a very broad spectrum of approaches, are certainly not the last word in negotiated arrangements.

B. WHERE DID THE IDEAS COME FROM?

Important, partly-made-in-Canada ideas have put market forces, rather than governments, politicians and regulators, in charge of the "commanding heights" of the Canadian oil and gas economy.

Quite a few of the important ideas that contributed to this change came from the NEB, and from NEB staff. I already mentioned Miles' and Vollman's contributions. Another fertile mind was that of Mr. Gaetan Caron, a "home-grown" product of the Board. His vision was very important in relation to the generic cost of capital. He is a persistent advocate of imaginative and novel approaches to regulation. I think if it

were not for that persistence, the generic cost of capital proceeding would not have taken place in face of most potential participants' hesitation. The presence of the generic cost of capital decision was, in my view, important as a building block for the subsequent gas pipeline settlements.

More generally on the ideas front, I have to pay tribute to the upstream industry, and to the Alberta politicians and officials of the mid-1980s. They had a market vision and boldly expressed it even though the North American and international market environments were clearly going to produce revenue results from commodity deregulation that would fall far short of what the regulated regime had yielded. I commend these people for their vision. Ironically, the Alberta officials who served their province and country so well in shaping the transition from regulated markets to free ones, did not fit comfortably with the last two Alberta governments. It is the province's loss that they are no longer in her service.

XIX. UNHAPPY HOURS

Like all other decision-making groups, the NEB has made some good decisions, some poor ones and some mediocre ones. And I am sure that all of the practitioners before the NEB keep their own private scorecards with As through Ds — not too many of the latter, I hope.

In 1986, the Board was dealing with a weld failure on a high vapour pressure ("HVP") pipeline in other words, pretty dangerous stuff. The cause was related to the fact that a repair weld had been made to a liquid-filled line, which resulted in embrittlement of the steel and subsequent in-service failure. The Board decided without sufficient discussion and mature deliberation, to require the industry to remove all such repair welds forthwith and repeat the repairs on the line with the pipe being empty. This decision, if implemented, would have cut capacity of the HVP lines for an extended period, causing severe economic dislocation and therefore led to consternation in the industry. The Board climbed down. A careful program of consultation was established involving other regulators of such lines and a workable and much less costly solution was achieved that dealt with safety concerns while recognizing important economic considerations. The climb-down was inelegant and the uproar caused by the initial decision could have been avoided while achieving the same ultimately satisfactory result. The lesson: take your time, get as much information as you can about consequences and balance the interests in play.

In 1989, the Board was dealing with gas export applications on an omnibus basis in public hearings. One element of decision-making was a cost-benefit analysis. It provided useful employment to a number of prominent economic minds — law is not the only industry which has benefited from NEB regulation. The numbers came out negative for a number of the applications which were therefore denied. A behind-the-scenes uproar occurred. Again there was a climb-down as the Board decided on its own motion to review the relevant decision. The "fault" was that the Board put undue reliance on a theoretical construct which I do not think it properly understood. The theory is a nice one: that some of the benefits of an activity should be transferred to

those who bear certain costs as a result of it. The problem is that the data for determining costs and benefits are based on doubtful forecasting. And in the last analysis, there is no way in which the Board could effect a transfer from the beneficiaries of the activity (producers, exporters and importers) to those who were deemed to face unwanted future costs as a result of it (domestic gas consumers). The lesson: beware of decision-making based on theoretical constructs.

XX. THE GOOD SOLDIER SCHWEIK

The Board has done its share of spear carrying for Canadian interests where, given its druthers, and in less public circumstances, it probably would have declined to act.

I think this comment might apply to some of the post-certificate defence of the Northern Pipeline. I am not sure that the Board's reputation was everywhere enhanced by the rearguard action it fought to delay the coming of the open market for Canadian gas to northern California. And I found myself responding indignantly to some of the early Federal Energy Regulatory Commission liberalization measures which were sensible from an overall rational market basis.

I suppose the lesson is that we should not put up too much of a fight to maintain anti-market behaviours. On the other hand, I think regulators need to have the grace to provide reasonable adjustment transitions for the commercial actors who have committed themselves to a particular course of action on the expectation of existing regulatory rules of the game, when the game and the rules change.

XXI. THE BOTTOM LINE

The bottom line is that it was a wonderful ride with a fine organization that tries very hard to do its best in the circumstances. I served with people who were generally hard-working and who genuinely had the public interest in view. If there were mistakes, they were honest ones. Staff and members have never, in my observation, been motivated by any desire to aggrandize the Board or themselves. The Board has had its share of scrapes, but it has avoided scandals. I am very proud to have been associated with it and with the broader community with which it has interacted over the years. That of course includes many of your profession and, for your role in helping to make the Board what it is, I thank you.