CANADA'S NATURAL-GAS EXPORT OUTLOOK: FAREWELL TO THE SELLER'S MARKET

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I. Mixed Messages from the South

Canada's gas-export price is under fire from an army of critics in the United States --- editors, utility executives, Congressmen, and regulators --- including Chairman Butler of the Federal Energy Regulatory Commission (FERC). This unrest reflects new market realities that Canada must come to terms with, but there are a few other realities that the Americans here should acknowledge.

> **Firstly, the United States is only a recent, reluctant, and half-hearted convert to the principle that market value should have anything to do with the price of natural gas.**

Until 1974, the Federal Power Commission set the Canadian border price, and I do not remember that any U.S. pipeline executive, regulator, or Congressman ever denounced the fact that Canada's export price was lower than the value of gas to American consumers.[1]

> **Secondly, Canada's export-pricing policy never took full advantage of the shortages and deep curtailments in the United States during the late 1970's, or the resulting hunger of U.S. pipelines for additional gas at almost any price.**

Except at the British Columbia-Washington border,[2] Canada's export price was, until some time in 1982, **consistently lower than the prices U.S. pipelines would have been willing to pay.** The export price was also substantially less than levels which the U.S. gas-transmission industry, federal and state regulators, and the Congress considered acceptable for synthetic gas, Eastern Hemisphere LNG, and gas from Alaska. As recently as last August, U.S. pipeline companies were still

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signing up for new supplies of domestic "deep" gas at prices and under terms of take that made Canada's exports look like a bargain.

Thirdly, industry and government in the United States are still sending a bewildering mixture of signals to Canada about their own views of the mid-to-long-term market outlook and the reasonableness of the present border-price formula.

Not only are most importers determined to keep their present purchase commitments, even at the present price and under their present take-or-pay or minimum-bill obligations, but pipelines and utilities serving the Northeastern States are even now battling one another for the right to receive additional gas from Canada at **more than** the official border price (when one takes into account the cost of new-facilities construction) and at minimum-take provisions **more stringent** than those in existing contracts.

Finally, the speeches of Chairman Butler and letters from Congressmen are not the definitive formulation of U.S. policy.

The **latest official statement** of the Government's position is the August 1982 decision of the Energy Department's Economic Regulatory Administration (ERA), authorizing Boundary Gas, Inc., to import natural gas from Canada. In that Opinion and Order, ERA Administrator Hanzlik found that Canadian gas was "needed" to avoid shortages in the United States, and that the present border price was "reasonable".[3]

II. Six Market Facts

Though the messages now coming from South of the Border may seem novel or contradictory, Canadian policy-makers can not afford to ignore them. There are six aspects of the emerging market reality that I believe deserve special emphasis:

1. Natural-gas prices in the United States are now free and will remain free to balance demand with supply. As a result, deep and lasting shortages will not reappear.

Until 1982, most natural-gas producers, pipeline and gas-utility executives, and regulators in North America had not experienced any kind of market other than a sellers' market created by price and rate regulation. Never having had to worry about gas marketability, many of them are still spoiled silly and refuse to believe that a revival of OPEC or the world economy will not bring back the good old days of shortages, curtailments, and easy sales at any price.

Because the shortages are truly over, however, and because the last couple years' frenzy of above-market gas purchases has squashed the cushion of old regulated gas out of sight forever, new gas supplies will henceforward be unable to command the combination of high prices and stiff take provisions that were the norm when everyone believed natural gas was truly a premium fuel. With at least 40 percent of all gas sold in the U.S. still being consumed "at the margin" in industrial and electric-utility installations that are equipped or capable of being equipped to burn residual oil or coal, the U.S. can afford to lose a big chunk of its **present** gas supply before it will make economic sense for any domestic pipeline company to purchase new **base-load** volumes at a cost higher than the prices those marginal customers are willing to pay.

2. The United States can afford to lose its entire supply of gas from the North (and a lot more) before it will make sense for any gas company to sign up for another cubic metre of base-load gas at a price that even approaches the price Canada posts at its border today.

Within the past six months, every U.S. pipeline company has called off its shopping spree for "deep" gas free of price controls. Several have declared that they will not sign any new contracts for deregulated gas at prices higher than the legal ceiling for conventional gas --- currently about $3.30 per million btu. Other pipelines have gone one step further, and are unwilling to pay even the regulated ceiling prices for regulated categories of gas. A few companies like El Paso and Northern Natural are refusing to sign up for **any** new gas at **any** price until they are confident they can resell it.

Overall, the outlook for **increasing** export sales on a year-round basis is worse than bleak, unless Canada alters its border-price policy. Moreover, there is a good chance that the nation faces a **declining** export market as U.S. buyers insist on revisions in existing contracts to loosen their take-or-pay or minimum-bill commitments. If these buyers fail in renegotiating price and/or take terms, some of them will simply walk away from their contractual obligations, leaving the courts to sort out the damages, just as they are now doing in the United States. In that case, Canadian producers, pipelines, and investors will find themselves in the same fix as their southern counterparts who suddenly discovered that even the most carefully crafted legal covenant is scant shelter from the winds of changed economic reality.

3. The ability or willingness to make long-term export commitments has little bearing on the price at which Canada can market its gas.

There are major pipeline companies whose vision is still firmly planted in the 1970s, and which are still enchanted by the "supply-security" they imagine Canadian imports to offer. The illusion that long-term contracts are the philosopher's stone that can transmute the dross of overpriced, unsaleable gas into the gold of certain export revenues, is a dangerous one for Canada and a potentially disastrous one for the pipelines that embrace it.

A contractual right to buy gas for a price **below its market value** has always been a bargain, whatever its duration. That is what regulation offered U.S. pipelines until 1982, and it is what Canada was offering the Americans prior to 1975. A **long-term** contract at bargain prices was, of course, an even better deal.

The contractual right to buy gas **at almost any price used to be a good deal** for a U.S. gas-pipeline company, regardless of the contract's duration, because that gas could be mixed with cheaper domestic gas to yield an **average** price that guaranteed its saleability. In this situation, which prevailed until mid-1982, Canada could have squeezed higher

prices out of the United States than it actually did. A long-term contract under such conditions was, on its face, a better deal for the pipeline than a short-term or spot purchase, but it was indeed so only if the pipeline had an adequate cushion of cheap gas from other sources to last the entire life of the contract.

Today, almost every pipeline's old-gas cushion has been used up or fully committed. Average prices are **already** at or above market values. From now on, therefore, a contractual obligation to buy gas for a price above its market value will be a money-loser, whatever its duration. **A longer-term obligation to buy overpriced gas will simply be a bigger and more troublesome liability.**

4. If Canada holds firmly to its present export-pricing policy, its gas will not be saleable as a base-load commodity, but only as a last-recourse or peak-shaving option in U.S. markets.

Export sales are already becoming increasingly seasonal. Under the present price formula, volumes will remain far below the amount that Canada regards as surplus to its own needs and therefore available for export; and the Provincial and National treasuries will have lost all certainty with respect to export revenues.

Canada is, on the other hand, capable of selling a much larger volume of gas than it sells today, on a firm year-round basis, and perhaps under take conditions even tighter than today's contractual standards. To do so, however, and to attain any acceptable level of revenue certainty, Canadian exporters will have adopt a much more aggressive pricing policy --- one which makes gas exports competitive in the U.S. industrial bulk-fuel market.

This nation's gas-export policy choices, in truth, are not black and white. Between being exclusively a premium-price supplier of last resort and being exclusively a purveyor of base-load supplies at the lowest industrial-fuel price, there exists a motley spectrum of possible price and supply-term combinations. Every gas producer has a unique

set of preferences relating price to load factors and contract duration, reflecting the special conjunction of his own financial circumstances with the technical characteristics of his producing properties. Each pipeline company will, likewise, bargain from a unique combination of price and take preferences, based on its mix of customers, seasonal demand profile, storage facilities, and the prices and other characteristics of its other supplies.

If Canadian producers and U.S. pipelines could freely negotiate all terms of their transactions, the result would be an assortment of contractual arrangements that touched every part of the price-vs.-take spectrum. It is probably time for policy-makers in this country to reconsider whether Canada gains anything at all from official constraints on the mixture of contract terms Canadian gas producers are allowed to negotiate with U.S. buyers.

5. Canada has in fact already abandoned its control over export volumes, because it is surplus deliverability in the United States, together with the border price (rather than NEB's licencing procedures) which limit the amount of gas actually exported.

Regardless of whether the actual constraint on exports is the licenced volume or the market price, some Canadian producers will always be left with surplus deliverablity. The NEB must, therefore, operate **some** kind of mechanism for rationing export opportunities. The present approach of apportioning export licences on a company-by-company basis assures that a substantial amount of unserved export demand will coexist with underutilized export authority. Whatever rule the NEB uses to determine the exportable surplus, there are means by which it could bring actual export volumes and export revenues far closer to the intended levels than is the case today.

The Board could, for one, overlay the existing company-by-company licencing system with a "**white market**" that permitted the free sale, assignment, or exchange of export rights. Better yet, it could retire completely from the business of apportioning licences to specific

parties, but instead prorate the exportable surplus among all producers in proportion to some index of proved reserves and installed production capacity, leaving the specifics of sales and the timing and location of actual production to the market.

Regardless of what Canada chooses to do on any other aspect of its gas-export policies, adoption of a white market for export authorizations offers real benefits. It spreads the benefits of exports among all producers even more widely than Alberta's present flow-back scheme, ensuring that every producer can count on some reward for finding and developing new supplies. Actual production, on the other hand, would tend to come from the lowest-cost sources. The white market would, therefore, also free the National Energy Board from having to make the invidious and therefore troublesome decisions about **whom** it allows to export gas.

By the same means, Ottawa could also extricate itself from the thorny questions of **who ought to receive the gas in the United States,** and thereby take one step out of the morass of regional disputes within Canada. Whether the gas departed by way of Huntingdon, British Columbia or Niagara, Ontario would be left entirely to supply and demand. Here too, the lowest-cost (or neediest) producers would extend themselves to capture the business, while gas would automatically flow to its most lucrative export markets.

The most pressing issue now is not, of course, how Canada ought to manage its volumetric control over gas exports but what if anything it should decide about the border price. Obviously a return to the situation in which U.S. regulators unilaterally set import prices below market value would be intolerable. In today's world, however, we believe the case for perpetuating any kind of fixed border price is awfully weak.

6. The fixed border price does not maximize incoming revenues.

Except by accident, it is impossible for **any** seller to control **both** his sales volume and his sales price without leaving either "goods on the shelf" or "money on the table". (This is a lesson Saudi Arabia is belatedly learning about crude-oil markets.) Today, the fixed border price only ensures that U.S. customers who value Canadian gas at something less will not enter into a sale, and that some gas which is officially surplus to Canada's needs will not be sold. On the other hand, if the actual constraint on exports once more turns out to be the volume cap (as was the case during the 1970s) the existence of a fixed border price means that Canada will get less per unit than the market will bear.

Certainly, the old argument that Canada's natural patrimony ought not be squandered by "non-premium" users in the United States has lost whatever foundation in economic logic it may have once had. Whether Canada likes it or not, the marginal gas consumer does not view gas as more attractive than residual oil or coal, and any new **base-load** supply of gas must be saleable to that kind of consumer. If Canada really wants to prevent its gas from being burned in industrial boilers south of the border, it will have to settle for taking a share of the peak-shaving market, with reduced sales, low load factors, and unpredictable revenues.

In our view, there is at least one reason Canada should consider actively **encouraging** U.S. buyers to burn imported gas in industrial and utility boilers. A massive increase in U.S. gas imports, expressly aimed at replacing high-sulfur residual oil and coal, is probably the only strategy for North America offering much hope of early progress against acid rain.

Government determination of export prices is now a no-win game. Canadian officials can hire every economist on the continent and contract for all sorts of sophisticated models, but they will never be able to figure out what the correct price, prices, or pricing formulae should be on a particular day, much less keep up with their movements.

And, under any volumetric ceiling, any arrangement other than free baragining between individual buyers and sellers means that Canada will either sell less gas than it wishes to sell, or receive less net revenue per unit sold.

III. Summary

Policy-makers in Canada have a keen recollection of how and why the border price got where it is today (even if their American critics do not), and they are also well aware of the miserable failure of U.S. pipeline companies, regulators, Congressmen, and energy economists to anticipate the current gas-market revolution. Why, indeed, should anyone in Canada heed the admonitions the same parties are now so generously offering?

A reduction in the border price or minimum take would, of course, make life easier for those U.S. pipeline companies that bought too much unregulated domestic gas at prices considerably above the import price. It would also ease the political pressure on federal and state regulators who, only a few months ago, were still promoting the very policies which created the paradox of rising prices in the presence of surplus supply. The only good reason for Canada to change its gas-export policies, however, is a conclusion that such a change would benefit **Canada** in some real way.

I therefore sympathize with the reluctance of Canadians to accept the advice of parties South of the Border who come to this conference or to the bargaining table without clean hands, clear heads, or even a consistent story. Unfortunately, in my judgment, their general case is not only irrefutable but badly understated. Supply and demand are now in control of natural-gas markets in the United States. That is the reality which, one way or another, Canada's export policy must accomodate.

Notes

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The themes in this presentation are not new, except in their specific application to Canada's natural-gas exports. Their historical and analytical background appears in a series of earlier monographs and articles by Arlon R. Tussing and Connie C. Barlow. Those readers who are not familiar with the organization, economic dynamics, and regulation of the natural-gas industry in the United States should begin with "The Rise and Fall of Regulation in the Gas Industry" (which has appeared in the March 4, 1982 Public Utilities Fortnightly and the October 1982 Energy Journal), followed by Introduction to the Gas Industry (prepared for the Alaska Legislature in 1978) and Marketing and Financing of Supplemental Gas (prepared for the U.S. Department of Energy, also in 1978).

Further suggested readings on the revolution in U.S. natural-gas markets include the authors' address to the 1982 meeting of the Interstate Natural Gas Association of America (INGAA) --- published in the February 3, 1983 Public Utilities Fortnightly under the title "A Survival Strategy for Gas Pipelines in the Post-OPEC Era". Tussing and Barlow have also covered the essential economic, regulatory, and political issues regarding the Alaska gas pipeline in The Proposed Alaska Highway Gas Pipeline: Roots of the Present Impasse, and Financing the Alaska Highway Gas Pipeline: What is to be Done? (prepared for the Alaska Legislature in 1978 and 1979, respectively).

For an understanding of our views on the oil-price outlook, see A. R. Tussing, "An OPEC Obituary", in the Winter 1983 Public Interest.

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1. Curiously, there were few Canadians who saw anything unreasonable in the U.S. gas-import price policy prior to 1974. Granted, this policy did not discriminate against Canadian producers, as the FPC was also holding wellhead prices in the States below market-clearing levels. One reason Canadian politicians and regulators accepted the arrangement is the fact that domestic institutions had uncritically adopted the FPC's treatment of natural-gas producers as public utilities. Only after the apparent market value of Canada's gas began to exceed the border price by a factor of two or three did Provincial and then Federal authorities begin to do something the situation.

2. The price of British Columbia gas exported to the Pacific Northwest was and, of course, still is considerably higher than the price that B.C. sellers would have chosen in the absence of a border price dicatated by Ottawa. B.C. gas producers, the Provincial treasury, and U.S. gas consumers would all have been better off at with a lower price. Even here, however, it is important to recall that Canada established a uniform border-pricing policy (which precluded special treatment of Northwestern U.S. markets) only on the demand of the U.S. State Department.

3. U.S. Department of Energy, Economic Regulatory Administration, Docket No. 81-04-NG, Opinion and Order No. 45, August 9, 1982.

   "The general conclusion of most forecasters is that production of conventional gas in the Lower 48 states will decline in the foreseeable future. . . As a consequence of these ongoing trends and projections, additional imports of natural gas as well as unconventional domestic sources of gas supply will be needed in the future to supplement the declining production of conventional gas." (pp. 24-25) Moreover, "the ERA found that the present Canadian border price was reasonable compared to the cost of alternate fuels in the U.S. market, and not inconsistent with the public interest. **The record is undisputed on this point . . .**" (p. 31, emphasis added)