THE SENATE OF CANADA

OIL MARKETING: 1986

J 103 H7 33-1 E56 A12

> Standing Senate Committee on Energy and Natural Resources

> > JUNE 1986

	Canada. Parliament.
J	Senate. Standing Committee
103	on Energy and Natural
H7	Resources.
-33-1	Oil marketing, 1986.
E56 DATE	NAME — NOM
A12	



First Session Thirty-third Parliament 1984-85-86

SENATE OF CANADA

Première session de la trente-troisième législature 1984-1985-1986

SÉNAT DU CANADA

Proceedings of the Standing Senate Committee on

Energy and Natural Resources

Chairman The Honourable EARL A. HASTINGS Déliberations du Comité sénatorial permanent de

L'énergie et des ressources naturelles

Président L'honorable EARL A. HASTINGS

Wednesday, June 25, 1986

Le mercredi 25 juin 1986

Issue No. 32

Twenty-seventh proceedings on:

The National Energy Program

Fascicule nº 32

Vingt-septième fascicule concernant: Le programme énergétique national

FIFTH REPORT OF THE COMMITTEE

CINQUIÈME RAPPORT DU COMITÉ



MEMBERSHIP OF THE COMMITTEE

The Honourable Earl A. Hastings, Chairman

The Honourable R. James Balfour, Deputy Chairman

and

The Honourable Senators:

Adams, Willie Barootes, E.W. Bell, Ann Elizabeth Doody, C. William *Frith, Royce Hays, Daniel Kelly, William M. Kenny, Colin Lefebvre, Thomas H. Lucier, Paul *MacEachen, Allan J., P.C. Olson, H.A., P.C. *Roblin, Duff, P.C.

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Karen E. Wheeler, Administrative Assistant to the Committee

Timothy Ross Wilson

Clerk of the Committee

ORDER OF REFERENCE

Extract from the Minutes of the Proceedings of the Senate, December 18, 1984:

"The Honourable Senator Hastings moved, seconded by the Honourable Senator Petten:

That the Standing Senate Committee on Energy and Natural Resources be authorised to review all aspects of the National Energy Program, including its effects on energy development in Canada;

That the papers and evidence received and taken on the subject and the work accomplished during the Second Session of the Thirty-Second Parliament be referred to the Committee;

That the Committee be authorised to meet during an adjournment of the Senate;

That the Committee have power to adjourn from place to place within Canada for the purposes of this review; and

That the Committee be empowered to engage the services of such counsel and technical, clerical and other personnel as may be required for the above-mentioned purpose.

After debate, and The question being put on the motion, it was— Resolved in the affirmative."

Charles A. Lussier

Clerk of the Senate

REPORT OF THE COMMITTEE

The Standing Senate Committee on Energy and Natural Resources has the honour to present its

FIFTH REPORT

Your Committee, which was authorized to review all aspects of the National Energy Program, including its effects on energy development in Canada, has, in obedience to the Order of Reference of December 18, 1984, proceeded to that inquiry and now presents its final report.



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RECOMMENDATIONS

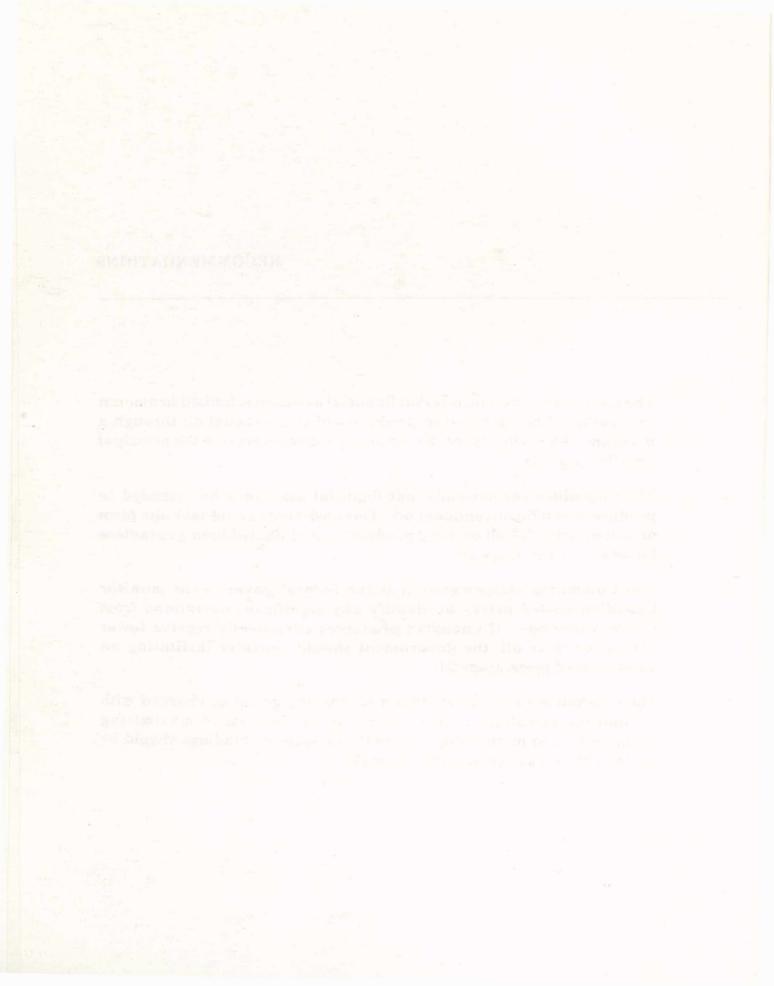
The Committee recommends that financial assistance, limited in amount and duration, be extended to producers of conventional oil through a program which will ensure that smaller producers receive the principal benefit. (page 14)

1.

- 2. The Committee recommends that financial assistance be extended to producers of nonconventional oil. This assistance could take the form of a floor price for all existing production and limited loan guarantees for new projects. (page 18)
- 3. The Committee recommends that the federal government monitor Canadian posted prices to identify any significant deviations from Chicago postings. If Canadian producers consistently receive lower values for their oil, the government should consider instituting an administered price. (page 20)

4. The Committee recommends that a monitoring group be charged with scrutinizing petroleum product prices in the interest of maximizing competition and minimizing costs to the consumer. Findings should be made public on a regular basis. (page 23)

1



FOREWORD

The petroleum business has changed radically since the Standing Senate Committee on Energy and Natural Resources released its August 1985 study, *Canadian Energy Policy: An Interim Report.* The recent dramatic slide in world oil prices has confirmed once again that the only certainty in the international petroleum market is the certainty of change.

Within a span of 13 years, the world has had to cope with an oil embargo, two sudden price increases and the current price decline. Governments, the private sector and individuals have struggled to make rational decisions in an environment where little is clear or predictable. In such a situation, government policy must be flexible to accommodate erratic movements in energy prices.

This Committee began its study of oil marketing in Canada six months ago. At the time of our first meeting on January 23, 1986, Imperial Oil was posting a price of Cdn\$30.21 per barrel for light crude oil in Edmonton, down from a peak value of \$39.90 on December 11, 1985. On the date of our final public hearing on May 12th, Imperial Oil's posting stood at \$19.72 per barrel, up from a low of \$16.70 on April 19th. A price decline of almost 60% in little more than four months left the Committee attempting to focus on a rapidly moving target.

In conducting this investigation, the Committee heard 15 organizations and individuals in public hearings and two groups at *in camera* meetings, while receiving ten additional submissions from other interested parties (see Appendices A and B). The Chairman and the Manager, Economics Department of the Alberta Energy Resources Conservation Board spent a day in Ottawa working with our research staff, clarifying a number of issues surrounding Alberta's oil production. The Committee endeavoured to learn how prices are established for oil from the wellhead through to the consumer. We have not been fully satisfied with the results. There are numerous discrepancies and contradictions in the testimony and it is not entirely clear how prices are set and who derives what revenue in the process.

One of the motives for conducting this study has been to help the public understand the new environment of Canadian oil supply, demand and trade. Some of the problems which have been described to the Committee are transient — the passage of time will see their resolution and government intervention is not warranted. In other cases, difficulties will persist and must be addressed by policy-makers at the federal or provincial levels.

In its Interim Report of August 1985, the Committee observed:

The oil problem has not disappeared; it is merely dormant. This period of relative calm should be used to plan carefully for a more secure energy future, one which minimizes the importance of oil and our reliance on imports.

The "period of relative calm" did not last very long. The Committee's concern with oil problems reappearing in the longer run is even stronger today. It is our opinion that low oil prices, should they persist, will lead directly and quickly to an increasing dependence on foreign crude if action is not taken now to forestall this development. Consequently, the issue of energy security is as prominently featured in this Report as it was in the 1985 study.

The Restrictive Trade Practices Commission released its three-volume fiveyear study, *Competition in the Canadian Petroleum Industry*, on June 13, 1986. In the few days that the Committee has had to examine this document, we find that our observations on Canadian oil marketing generally agree with those of the Commission in the areas of common interest. Like the Commission, we found no evidence of collusion in the petroleum industry. Nonetheless, some industry practices can gradually erode competition if not carefully monitored. Rack pricing, non-petroleum use covenants, managed accounts and long-term exchange agreements are examples of practices which concern the Committee with their potential for restraining competition.

The Committee has also concluded that the Canadian petroleum industry is in sufficient difficulty to warrant support from government — support limited, however, in amount and duration. Our Report discusses several options for assisting the industry through a very trying period of adjustment.

The dramatic slowdown in frontier exploration activity, in large measure a result of the Petroleum Incentives Program (PIP) being terminated, has had a serious

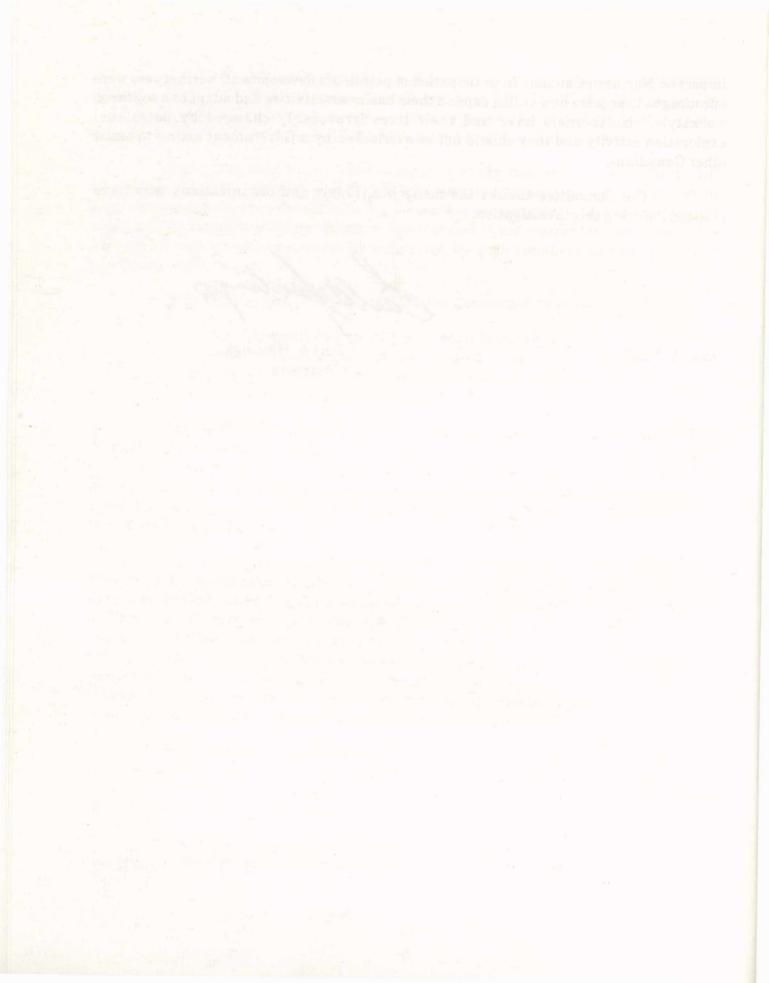
impact on Northern Canada. In anticipation of petroleum development, northerners were encouraged to acquire new skills, expand their business activities and adapt to a southern workstyle. Northerners have had their lives irrevocably changed by petroleum exploration activity and they should not be overlooked by a Government acting to assist other Canadians.

The Committee thanks the many individuals and organizations who have assisted it during this investigation.

Carlly actings

June 25, 1986

Earl A. Hastings Chairman



SECURITY OF OIL SUPPLY

A. Oil Security in a New Market Environment

In its Interim Report of August 1985, this Committee spoke of a sense of complacency in energy policy-making and a lack of concern about future oil supply in Canada. We see no reason to alter that opinion today. In fact, the current depressed price of oil strengthens our concern. Lower prices for oil products, if they prevail for some years, will tend to increase demand while reducing the domestic availability of crude oil in the 1990s.

Committee members see no grounds for complacency in projections of the Energy Resources Conservation Board of Alberta (ERCB), which in 1985 oversaw the production of approximately 84% of Canada's crude oil. According to the Board, if prices are slow in recovering, productive capacity could be as much as 150,000 barrels per day (11%) lower in 1990 than forecast in its March 1985 report, *Alberta Oil Supply 1985-2010*.

Low prices for crude oil reduce future oil availability through four principal mechanisms.

- Reduced activity in conventional oil exploration leads to lower rates of reserve additions as less new oil is found than forecast in the higher price regime.
- Development of bitumen and heavy oil deposits is retarded because of their high cost of production, lowering the future availability of crude oil from these sources.
- Wells with high water/oil ratios or with low-rate production are suspended because their operation becomes uneconomic, shutting in known oil in marginal pools.

New enhanced oil recovery schemes are deferred or cancelled because of their large front-end costs, reducing the ultimate recovery of conventional light and heavy crude.

Because of the time lags involved, these effects show up as lower productive capability some years later. They also result in the resource being less efficiently exploited — a larger percentage of the discovered oil is left in the ground.

The ERCB has calculated what effect low prices will have in the future on each component of Alberta's output of crude oil and equivalent: namely, conventional light and medium crudes, conventional heavy oil, synthetic crude from integrated tar sands plants and regional upgraders, crude (non-upgraded) bitumen, and pentanes plus (derived from processing raw natural gas but normally added to oil refinery feedstocks). The largest impact comes from the failure to expand gross bitumen production (synthetic crude and crude bitumen).

The Committee continues to believe, as it stated last summer, that energy conservation, oil substitution and the development of alternative energy options should be vigorously promoted in the national interest. Some of the provincial governments evidently hold a similar opinion, evidenced by the notable success that they have had in recent years in reducing their dependence upon oil. Quebec and Atlantic Canada are leaders in this respect, a reaction to their exposed position during the 1973-74 Arab oil embargo and the two price shocks. Taking Canada as a whole, oil's share of the national energy mix fell from 50.6% to 41.8% in just five years, from 1980 through 1984⁽¹⁾. This remarkable reduction — the product of energy conservation, fuel substitution and the most severe economic recession of the postwar period — reveals how the demand for oil in Canada can be reduced.

This success in reducing the relative importance of oil in Canada's energy mix has not come without its costs. One result has been a pronounced rationalization in Canada's refining industry, most notably in Quebec where the number of refineries has fallen from seven in 1981 to three today. This restructuring of the domestic refining industry, mirrored in most industrialized countries, has not yet run its course in Canada. Nonetheless, the Committee is convinced that the long-term benefits to Canada of steadily reducing the reliance upon oil in our energy system outweigh the costs which will be incurred during this transition.

^{1.} This calculation is made valuing electricity at its true energy content of 3.6 megajoules per kilowatt-hour, not at its "fossil fuel displacement value" of 10.5 megajoules per kilowatt-hour.

Because our views on this aspect of energy policy-making remain unchanged from the 1985 Interim Report, we restate the appropriate recommendations from that study.

> The Committee supports energy conservation efforts by the federal government and recommends that these efforts be expanded, and that the federal government continue to encourage the substitution of other energy forms for oil.

> The Committee recommends that the federal government support alternative energy research and development at a level sufficient to maintain and enhance the leading position that Canada has achieved in this field, and in recognition of the export opportunities which it represents.

Low oil prices temporarily reduce the scope for fuel substitution and for investment in energy conservation. Low prices also retard progress on introducing new energy forms and innovative energy technologies. But a nation's long-term energy security is not well served by short-term policy-making: energy strategy must also address the needs of Canada's energy system in the 1990s and beyond.

The Committee further considered the problem of Canada's shifting pattern of crude oil output, from conventional light and medium crude oils to bitumen and heavy crude. Nothing in the testimony suggests that this trend will be reversed. Canada is thus faced with a choice as the output of these heavy hydrocarbons increases: to expand sales of these heavier oils in the U.S. market, while importing progressively larger amounts of light crude, or to construct upgrading facilities within Canada to produce lighter oil products for domestic consumption.

It is the Committee's view that the upgrading capacity should exist in Canada to handle the bulk of our expanding bitumen and heavy oil production. At today's prices, this would require government support of such ventures, support which this Committee is prepared to recommend. BP Canada may be correct in saying that "any energy crisis will be shortlived", and is right in observing that "Insurance for the future costs money." The federal government, however, has a responsibility to help ensure that the Canadian public has reasonable access to secure supplies of energy. Although the 1979-80 eruption in oil prices proved to be self-correcting, the largest part of that correction took half a decade to occur.

The responsibility for promoting energy security does not rest on the Government of Canada alone. Provincial governments, the private sector and the general public must also share the burden. Under the National Oil Policy of 1960-1973, which divided Canada into two markets along the Ottawa Valley Line, Ontario consumers paid a modest premium to assist the development of Canada's petroleum industry. From 1974 to 1985, the industry and the oil-producing provinces contributed large amounts of revenue to cushion the impact of high international oil prices, a benefit to all Canadian consumers. Today, the petroleum industry is experiencing a particularly difficult period and both levels of government have already moved to assist it.

In each instance, decisions were taken in what was judged to be the national interest. Sharing among Canadians has been a strength of Confederation and must continue to be a strength in the future.

The dramatic decline in OPEC oil output in the 1980s has left several of the Gulf states with a reserves-to-production ratio of more than 100, while in the United States and Canada it is in the vicinity of ten. The North Sea is reaching the peak of its production curve and a number of other non-OPEC producers are lifting crude oil at or near their capacity. The Persian Gulf will consequently hold a greater percentage of world crude oil reserves in the future than it does today. In contrast, Canada's output of conventional light crude in Western Canada is projected to decline to less than half of its present volume by the end of the 1990s; the remaining supply will consist of synthetic crude from integrated tar sands plants and regional upgraders, heavy crude, bitumen from non-integrated tar sands projects, and frontier light crude. It is this remainder which represents the higher-cost sources of oil.

The domestic market for oil is once again dividing into two segments. Since the Western Accord, the movement of Western Canadian crude to Atlantic refineries has virtually ceased; in 1984, domestic crude satisfied 40% of Atlantic Canada's refinery demand. The Quebec market is again turning to offshore sources for part of its needs, evidenced by the declining transport of oil in the Sarnia-to-Montreal extension of the Interprovincial Pipe Line. In the first quarter of 1986, Western Canadian crude moved into Quebec at an average rate of about 119,000 barrels per day; during 1984, domestic crude deliveries to Quebec averaged approximately 196,000 barrels per day. The shortterm result is an increase in both crude exports and imports, with Canada remaining a net oil exporter for the present.

The prospect for the future is for offshore crude to supply all of Eastern Canada, the Sarnia-to-Montreal extension of the IPL to be either shut down or reversed, and for Ontario refiners to become dependent upon foreign crude for at least part of their feedstocks.

B. A Working Definition of Security of Supply

People frequently discuss security of supply without defining the concept. Currently, Canada is a net exporter of oil — it sells larger volumes of crude oil and products abroad than it imports. This situation contrasts with most of the postwar period during which Canada was a net oil importer.

The Committee does not define security of supply as the ability to supply all regions of the country with all of the required crude oil coming from domestic production. In an emergency, there is some capability to move domestic crude all the way to Atlantic Canada, as was done as a matter of policy with federal transportation subsidies in the early 1980s. In the event of a major disruption in international supply, there are also provisions for sharing oil among the member nations of the International Energy Agency (IEA), including Canada and the United States. For such reasons, there is no compelling need for maintaining an uneconomic distribution infrastructure to all parts of the country.

In any case, Western Canadian crude cannot economically compete in today's market with foreign crude in every region of the country. It could not do so even if there were a pipeline delivery system stretching from coast to coast. It is more cost efficient to market some Western Canadian light and heavy crude in the United States and import foreign crude into Atlantic Canada and Quebec.

The Committee judges Canada's supply position to be reasonably secure if domestic oil output comes close to balancing domestic demand, with excess Western crude being sold in the United States and some foreign crude moving into Eastern Canada. Article 8, Part I of the Western Accord also provides reassurance on this point:

> In the event that supplies of crude oil and petroleum products to Canadian consumers are significantly jeopardized, the federal government, after consultation with producing provinces, may restrict exports to the extent it considers necessary to ensure adequate supplies to Canadians.

Even by this definition — equating security of supply with rough net selfsufficiency — Canada risks becoming overly dependent on foreign oil in the 1990s. Unless our production of bitumen, heavy oil and frontier light crude is expanded to offset the diminishing supply of Western Canadian conventional light crude, Canada will once again become a net importer of oil. Events of the 1970s and 1980s have demonstrated that this is a dependence to be avoided.

Some observers have noted that Canada is exporting a share of its lower-cost light oil reserves to the United States, knowing that this supply will have to be replaced

from higher-cost sources in the future. This leads them to argue that the export of conventional light crude should be prohibited.

In a sense this argument is correct — all countries that extract raw materials tend to exploit readily accessible, lower-cost deposits first. Exports generate revenues for further development of extraction industries.

If the reserves of any commodity are held in the ground, there is an inventory charge which must nonetheless be covered — in this case the petroleum industry has invested funds to discover the oil and needs to sell the resource to recover that investment. Moreover, as Canada exports light crude from the West, it imports light crude at a comparable price in the East. This exchange is the lowest-cost method of supplying all regions of the country with their current oil requirements.

For reasons such as these, the Committee is not prepared to recommend that exports of conventional light crude oil be restricted under normal market conditions. In the event of an emergency, the federal government can intervene to control the disposition of domestically produced oil.

In our opinion, long-term energy planning which fosters bitumen and heavy oil development, frontier oil development, energy conservation and fuel substitution in a judicious blend — to offset our diminishing supply of conventional light crude — is a sounder approach than interfering with Canada's trade in petroleum.

There are benefits as well if Canada is seen to be a reliable supplier of crude oil to the United States, even if that trade in oil is on a modest scale. As an oil supplier, Canada has another card to play in negotiations with the United States. This would help ensure that oil from the United States actually would be supplied for Eastern Canada in the event of another international oil crisis.

PRICE STABILIZATION

While the Committee supports the transition to a decontrolled oil sector, it is concerned about the short-run consequences of drastic changes in the price of energy. Will such aberrations jeopardize our domestic petroleum industry?

The Committee believes that the independent sector of the Canadian petroleum industry is especially at risk. Given the strategic importance of ensuring security of supply, the Committee is prepared to recommend measures which will help our domestic oil industry weather the storm.

In keeping with its Interim Report of 1985, the Committee does not propose a return to a widely regulated oil industy. But it is cognizant of the fact that this industry has traditionally received discriminatory treatment with respect to taxation and industrial policy. It is only fair to acknowledge that when oil prices were high, the industry paid a large amount of money in special taxes unique to the petroleum sector. It is likely that should another rapid price increase cause high profits in the petroleum industry, governments will tax away part of that surplus.

The Committee assesses the current difficulties of the Canadian petroleum industry to be grave, and advocates action on the part of the Government because of the vital role this industry plays in our national security. Assistance is called for and required. The Government should exercise its prerogative as stated in Article 9, Part I of the Western Accord:

> In the event of international oil market disturbances that result in sharp changes to crude oil prices, with potentially negative impacts on Canada, the Government of Canada, following consultations with provincial governments, will take appropriate measures to protect Canadian interests.

In times of fiscal restraint it is always difficult to resolve the question of how to fund and deliver government assistance. The Committee believes that its main role is to apprise the Government of the concerns it has and the results it expects. The Government must decide upon the mechanics of the assistance. However, because the expenditures called for are likely to be substantial, the Committee feels compelled to present several options which may be considered by the Government.

A. Price Support for Conventional Oil Production

There is no doubt that the petroleum industry is facing difficult times. While some integrated oil companies have reported healthy financial positions — to the extent of shopping for suitable Canadian companies to take over — most companies in the industry are not doing well, and returns for the first two quarters of 1986 have generally deteriorated in the wake of low petroleum prices which hit at the end of 1985.

The issue then becomes which companies are hurting most and which are in the greatest need of assistance, given the goal of Canadian energy security. In the opinion of the Committee, the answer to both questions is the same. It is the smaller nonintegrated producers. They are predominantly Canadian companies. They drill the majority of Canadian oil wells. They are more efficient than the larger companies at finding and developing small oil pools.

Recommendation 1

The Committee recommends that financial assistance, limited in amount and duration, be extended to producers of conventional oil through a program which will ensure that smaller producers receive the principal benefit.

The Committee is prepared to recommend some type of price support for a limited volume of production, available to all producers, large and small, on a nondiscriminatory basis. The Committee's main concern is the small producers. To them, such an arrangement would have a large impact, and the bulk of total payouts would go to small producers.

Essentially, the program could work as follows. The Government would pay a supplement on the first thousand barrels per day of production, for example. The supplement would be the difference between the market price and a government-determined floor price at the time the oil changes hands.

How would the floor price be determined? Admittedly, this would be somewhat arbitrary. A good benchmark might be the suggestions of the witnesses who have testified to the Committee as to what oil price would minimize their cash flow problems. The Committee, in the absence of more precise means of dealing with this question, would suggest a floor price in the area of Cdn\$22.00. This should be sufficient to assist small producers of crude oil as it is substantially above average oil finding costs in Western Canada today.

It is difficult to estimate the cost of providing a floor price for the first thousand barrels per day of production for each Canadian producer, since the future price of oil is not readily predictable. For purposes of illustration, we assume a price differential of Cdn\$5.00 per barrel between a \$22.00 floor price and the average Canadian selling price. There are only about 75 producers whose average daily output of crude oil exceeds 1,000 barrels; the Independent Petroleum Association of Canada (IPAC) informed the Committee that of approximately 600 Western Canadian producers, more than 80% had an output of less than 400 barrels per day. Rough calculation suggests that the program of price support could cost about \$0.5 million per day, or close to \$200 million a year under those conditions. The bulk of these funds would accrue to smaller producers.

The Committee considered the question of whether there should be a distinction between old and new oil, in order to help small explorers but concluded that this would be an administrative complication. The main aim of the program is to keep small producers in business, and there is no doubt, in the Committee's opinion, that the money would have the desired effect.

For enhanced oil recovery projects, Alberta already grants royalty relief to sustain EOR output by providing operators with royalty-free revenues to cover the incremental costs of any EOR program, over and above the cost that would be attributable to waterflooding.

One drawback of such a program is the administrative burden it imposes. The necessity of involving bureaucrats and having the Government make the support payments arises from the fact that the floor price does not apply to all production. If it did, the Government could save the cost of administering the program simply by legislating that all purchases of standardized crude oil take place at or above the specified floor price. Refiners would incur higher input costs, and this would be reflected in higher prices to the consumer, lower refinery margins, or lower federal and provincial income from taxes or royalties.

Were the floor price to apply to all production, the industry would receive a larger revenue than intended by the Committee, at an unreasonable cost to the federal treasury or to the consumer. If the floor price were reduced accordingly, the amount of assistance could be brought into line with the original budget but the distribution would be unsatisfactory. Large integrated companies would be the main beneficiaries; some small producers, with outputs below the maximum eligible volume, would receive less than they would under the support-payment plan. This is not the intention of the Committee. Once set, the maximum volume eligible for price assistance would apply to all companies.

B. Options for Assistance to Nonconventional Oil Projects

The Committee has considered the merits of direct grants and other forms of assistance, particularly with respect to upgraders and oil sands plants. Bitumen and heavy oil production will become vital elements of Canadian oil supply as reserves of light crude diminish. But it is a difficult decision to opt for assistance if such projects are not economically viable. The quandary the Committee has faced can be explained as follows.

It is necessary that new investment in upgraders and oil sands facilities take place now if additional productive capacity is to be in place in the 1990s, when oil prices are expected to increase and our reserves of light crude will have run down. This is a period when Canada and other nations could be vulnerable were there to be a supply crisis in international markets.

Due to the uncertainty of the world oil market and current low prices, even investors with adequate cash flow have chosen to defer the construction of nonconventional oil projects. This private sector strategy is understandable given the circumstances facing individual companies which are induced to cut back on exploration and high-cost oil production in favour of accelerating extraction of conventional reserves.

If the price of oil stays low, expensive exploration efforts will be curtailed and fewer additional reserves will be discovered. Investment in nonconventional oil development will be uneconomic. This will lead to an increasing reliance on light crude imports.

If oil prices recover, Canada will lack the facilities to produce nonconventional oil even though it might then be profitable. Oil sands plants started after the price recovery would not come into production for several years, perhaps after another highprice oil shock has occurred.

In both cases, nonconventional oil production capacity is vital to Canada's security of supply. In both circumstances this capability might not be there when needed.

Should there be a national policy for stimulating oil sands development? From a fiscal standpoint, it hardly seems practical to recommend such expenditures. Yet this might be less of an injection into the oil industry than the revenue extracted by governments during the period of high prices. The case could be made that the proposition is reasonable. Still, it does not seem practical. The Committee suggests that a program of partial loan guarantees might be one step towards resolving this problem. Loan guarantees would enable private investors to raise capital for such projects, should they assess as adequate the probability of realizing a competitive rate of return over the operational life of the project.

Today lenders are reluctant to extend credit to the energy sector. But if risktakers are willing to construct such plants using their own capital and a portion borrowed from the capital market and guaranteed by the Government, the guarantee program might compensate for the risk-aversion of the banking sector, allowing such projects to go ahead.

Will the decisions of the risk-takers be economically sound? Yes, if they are required to invest enough of their own money in the project. Given the range of forecasts generated in the industry, it is clear that at least some people are convinced that prices will recover strongly in the 1990s. These people therefore would have reason to invest if credit were available.

Might the Government have to pay off bad loans? Yes. This would be a cost of supporting security of supply — but it is not a payout that will necessarily be required, and, if it is, it will not be required until several years from now, at a time when the treasury should be in better condition to carry it. No one would enter into such ventures intending to have to make a claim on the loan guarantee, because their equity would also be lost.

C. Floor Price Mechanism for Oil Sands Projects

An alternative to the loan guarantee program suggested above might be to apply the floor price previously discussed for part of the conventional crude production to all crude bitumen and synthetic crude output. In its Interim Report, the Committee recommended a temporary floor price for existing projects. The Committee has more recently reconsidered the possibility of a guaranteed price which would apply to all production from existing and future projects, until the capital cost plus an interest factor is recovered. The Committee has adjusted its position in light of the dramatic decline in oil prices since the publication of the Interim Report. Under these new circumstances, the Committee concludes that a guaranteed price may be necessary to induce the construction of new nonconventional oil projects.

Recommendation 2

The Committee recommends that financial assistance be extended to producers of nonconventional oil. This assistance could take the form of a floor price for all existing production and limited loan guarantees for new projects. If all synthetic crude and crude bitumen output were to be covered by a floor price, what would this add to the cost of the program? In 1985, Western Canada's production of oil in these categories amounted to roughly 230,000 barrels per day. Again assuming a differential of Cdn\$5.00 between a \$22.00 floor price and an average Canadian selling price, the cost becomes almost \$1.2 million per day, or about \$420 million on an annual basis for current output. As future nonconventional projects come into production, the cost of the program would increase, assuming a continuing \$5.00 price differential.

Another option considered by the Committee was an accelerated tax write-off which would be available to equity investors on a flow-through basis. The recent introduction of such a tax provision applying to the Canadian mining industry seems to be a major stimulant to renewed development. Such a program should also have a time limit, and phase out if the price of oil rises above a specified level considered sufficient to induce investment without the need of special incentives. A further refinement could be a sliding scale write-off that reduces in percentage as the price of oil increases.

The Committee recognizes, however, that the tenor of public opinion and government policy is toward a simplified tax system. Flow-through share arrangements introduce administrative complications.

D. Funding the Assistance to the Industry

In suggesting a price-support scheme, the Committee is able to present several options for financing the increased revenues to crude oil producers. All of these options are painful.

Special taxes could be applied at the refinery or retail level. The Committee believes that an explicit cents-per-litre tax applied at the retail pump is preferable because it is likely to minimize the price increase to the consumer. Were the tax applied at the refinery level, it would be very difficult to judge whether resulting pump price increases reflected only the tax, or a combined tax and revenue increase for the refiners. This is because various products are derived from a barrel of crude, and it would be hard to check if the apportionment of the tax were exact.

If the tax were applied at either level, it would be users of petroleum products who would pay for the support program: automobile drivers, aviation companies, homeowners with oil heating, and so forth. Canada's petrochemical industry, already in difficulty with strong international competition, would be particularly affected as an important consumer of refinery output.

There is another disadvantage with a tax at the refinery or retail level — the unfavourable impact in the view of the consumer. Concern has been expressed to the

Committee with respect to gasoline prices which do not seem to reflect the recent large decrease in the price of crude oil. A price increase would magnify this concern.

The Government also has the option of financing the support payments from the Consolidated Revenue Funds. Canadians would be paying for the support program in direct proportion to their total tax payments. This approach has the intuitive appeal that the people of Canada all contribute to the program because it is undertaken in the interest of Canada — to provide for energy self-sufficiency which is beneficial to all sectors of the economy and all regions of the country.

The practical disadvantage of this method is that it would raise the deficit to the extent that federal taxes were not increased — not an attractive proposition for the Minister of Finance.

Nonetheless, the support program is vital. Either way, the collection mechanisms are already in place. It is up to the Government to choose what means or combination of options it wishes to employ to pay for the program. The Committee simply advises the Government as to the results it wishes to see.

It is important to state that the Committee is not advocating the creation of a set of circumstances that divorce Canadian petroleum producers from the realities of the world market. The Committee is recommending assistance because the industry is experiencing difficulty adjusting to the simultaneous transition to the new market environment of deregulation and the sudden and severe decline in crude oil prices.

There should be a sunset clause in the price-support program, which would wind down the payments in two years. This should give the industry time to adapt to conditions in the free market.

The Committee stands behind its Interim Report recommendation that in the event of a drastic price *increase*, temporary assistance should be provided to consumers to assist *them* in adjusting to the new circumstances.

E. Monitoring Posted Prices

Whether or not a support payment system is adopted, there is a further pricing issue to be addressed. Evidence before the Committee indicates that posted prices for Canadian crude oil — that is, what refiners are willing to pay to Canadian producers — are lower in Canada than the posted prices that the refiners' parent firms in the United States are paying for American oil of comparable quality.

Simply put, the major refiners are paying less for Canadian crude oil than they do for American oil. Canadian producers have little choice but to accept the posted price.

It is difficult to sort out the reasons for this discrepancy. No individual refiner will pay more than the going rates — which in Canada are in effect established by four refiners. The Committee was told that transportation costs to Chicago must be "backed out" (i.e., subtracted) from posted prices for Canadian oil. The reasoning is that if the Canadian producers did not sell their oil to Canadian refiners, they would have no other alternative than to sell it in the Chicago market, and would have to bear the costs of getting it there.

Whether or not one accepts that Canadian producers should have to abide by the take-it-or-leave-it posted price of the four refiners, transportation costs to Chicago only amount to a little more than Cdn\$1.00. This does not account for the \$3 per barrel discrepancy reported in testimony to the Committee, which had the transportation charge already factored out.

Figure 1 compares an average of three Canadian light crude postings with the West Texas Intermediate (WTI) spot price and an average of seven WTI postings at Chicago, in U.S. dollars per barrel. The comparison extends from the time of deregulation through April of 1986. From this chart, prepared by PanCanadian Petroleum, it is apparent that Edmonton postings (adjusted to Chicago) began to track the WTI spot price quite closely in January 1986.

It has not been possible, on the basis of the refiners' testimony and submissions, for the Committee to reconcile the explanations given for several anomalies pertaining to oil marketing in Canada.

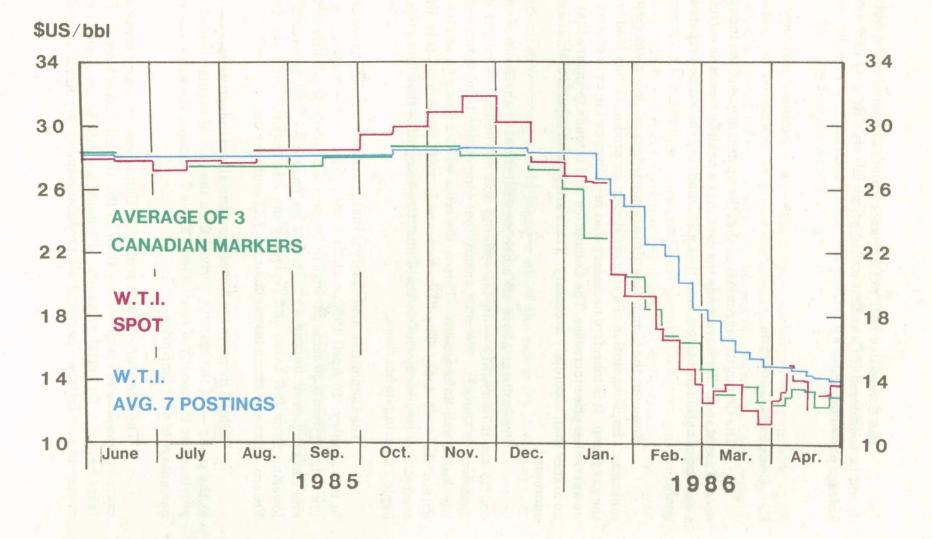
Recommendation 3

The Committee recommends that the federal government monitor Canadian posted prices to identify any significant deviations from Chicago postings. If Canadian producers consistently receive lower values for their oil, the Government should consider instituting an administered price.

A weighted average of Chicago prices could serve as a proxy because in the Chicago market all crude oils — from West Texas Intermediate to Brent and Arabian crudes — are available on a spot, contract and futures basis. Chicago is a large market at the hub of numerous pipelines, with many refiners purchasing crude oil. The weighting should be proportional to the amount of contract oil (using posted prices) and non-contract oil (using spot market prices) acquired to supply American refineries.

The Committee wants Canadian producers to receive revenue from their crude oil sales to Canadian refineries equivalent to the revenue they would obtain for that oil in the Chicago market, were they actually selling it there. Hence Canadian prices should reflect a weighted average of Chicago posted and spot prices. **FIGURE 1**

LIGHT CRUDE PRICE IN CHICAGO



The Committee does not advocate an administered price, but this possibility should be considered if Canadian posted prices fall significantly and consistently below Chicago posted prices.

F. Consumer Concerns

The Committee is convinced that the upstream end of the industry is in serious need of assistance. We have made the case that a healthy domestic petroleum industry is a matter of national interest, and that all Canadians should be prepared to support this goal.

However, the Committee also acknowledges an important responsibility to the consumer. Implementation of a support system for producers may lead to higher prices at the gas pump. It is therefore necessary that measures be taken to protect consumers from unwarranted price increases. The Committee still intends to ensure that retail prices are no higher than absolutely necessary. There are several aspects of this issue which must be addressed.

Pre-eminent above all other considerations is the issue of competition — or doubts about its reality — in the refining and marketing operations of oil companies operating in Canada. We must ensure that competition is maximized through effective legislation and enforcement. This is the most efficient way to ensure that consumers obtain the best deal. The "Downstream Issues" section of this Report discusses competition issues. However, the Committee recognizes that this subject was not fully explored during its hearings.

The Committee also observes that provincial gasoline taxes are typically high in this country. In April 1986, regular leaded gasoline was subject to a provincial sales tax ranging from 8.30 cents per litre in Ontario to 13.65 cents per litre in Quebec. Alberta and Saskatchewan impose no sales tax on gasoline. The provinces might consider lowering their fuel taxes and replacing the lost revenue from the general tax base. Federal sales and excise taxes amount to 7.48 cents per litre.

Table 1 displays the federal, provincial and industry shares — in cents per litre at the pump — of the revenue derived from the sale of regular leaded gasoline in each province, for the month of April 1986. Table 2 presents the same shares expressed as a percentage of the pump price.

The Government has reminded Canadians on many occasions that federal taxes on gasoline are higher here than in the United States because Canadian federal taxes help pay for social programs. Perhaps it would be more meaningful to say that money to pay for the suggested oil producer support payments should come from the proceeds of federal gasoline taxes, since both are energy-related. The Government could then raise other broadly-based taxes to replace the funding for the universal social programs. This would seem to be the appropriate way to earmark funds, and would in this instance be of benefit to gasoline consumers.

The Committee hesitates to advocate a fiscal system where earmarking of funds is made a general principle. We prefer the traditional system of advising the Government on what is needed for the country, and having it paid for from the general revenue account.

However, given that so many programs are justified on the basis of user-pay, and that the earmarking of funds has become very prevalent in Canadian policymaking due to restraints on additional fiscal spending, the Committee believes that the most logical matching should be sought after.

G. Monitoring the Petroleum Industry

The federal government should reassess all of the resources it employs in various departments and agencies to monitor various aspects of the petroleum industry, and ensure that there is a group charged with the explicit mandate of scrutinizing pricing behaviour and taxation in all aspects of the petroleum industry. This group should publicize its findings in a regularly issued bulletin — similar to the monthly consumer price index report or unemployment statistics — in order to keep the public informed of the true state of affairs and to make the industry aware that it is under constant public and government scrutiny.

Recommendation 4

The Committee recommends that a monitoring group be charged with scrutinizing petroleum product prices in the interest of maximizing competition and minimizing costs to the consumer. Findings should be made public on a regular basis. Petroleum Product Marketing Oil Pricing & Market Analysis Division Energy, Mines and Resources, Ottawa May 27, 1986

TABLE 1

Revenue Distribution Breakdown Regular Leaded Gasoline April 1986

			Ce	ents/Litre						
	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
Federal Share										
Sales Tax Excise Tax Wellhead Share (2)	3.98 3.50	3.98 3.50	3.98 3.50	3.98 3.50	3.98 3.50 .19	3.98 3.50 .50	3.98 3.50 .50	3.98 3.50 .50	3.98 3.50 .50	3.98 3.50 .50
	7.48	7.48	7.48	7.48	7.67	7.98	7.98	7.98	7.98	7.98
Provincial Share										
Wellhead Share (2)					.83	2.18	2.18	2.18	2.18	2.18
Sales Tax	10.90	9.50	9.70	9.70	13.65	8.30	8.90	.00	.00	9.51
	10.90	9.50	9.70	9.70	14.48	10.48	11.08	2.18	2.18	11.69
Industry Share										
Retail	3.00	5.30	5.30	5.50	3.00	3.00	3.00	3.00	3.00	3.00
Refining & Marketing (1)	15.02	10.32	9.32	11.92	9.02	7.13	12.72	8.19	12.99	10.57
Crude Oil Transportation (4)					.48	1.13	.54	.47	.37	.88
Wellhead Share (2)					2.25	5.92	5.92	5.92	5.92	5.92
Upstream Operations (2)					2.04	5.36	5.36	5.36	5.36	5.36
Imported Crude (3)	19.30	19.30	19.30	19.30	11.97		per la			140
	37.32	34.92	33.92	36.72	28.75	22.54	27.54	22.94	27.64	25.73
Pump Prices	55.70	51.90	51.10	53.90	50.90	41.00	46.60	33.10	37.80	45.40

Notes

(1) May include some income taxes.

(2) Based on average monthly Alberta purchase price, lagged 60 days.

(3) Reflects industry average import cost by month of loading, lagged 60 days.

(4) Reflects pipeline tariffs and includes an estimated gathering and trucking fee of 0.37cents/litre.

Petroleum Product Marketing Oil Pricing & Market Analysis Division Energy, Mines and Resources, Ottawa May 27, 1986

TABLE 2

Revenue Distribution Breakdown Regular Leaded Gasoline April 1986

% Pump Price

				*						
	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC
Federal Share										
Sales Tax	7.15	7.67	7.79	7.38	7.82	9.71	8.54	12.02	10.53	8.77
Excise Tax	6.28	6.74	6.85	6.49	6.88	8.54	7.51	10.57	9.26	7.71
Wellhead Share (2)					.38	1.23	1.08	1.52	1.33	1.11
	13.43	14.41	14.64	13.88	15.07	19.47	17.13	24.12	21.12	17.58
Provincial Share										
Wellhead Share (2)					1.63	5.31	4.67	6.58	5.76	4.80
Sales Tax	19.57	18.30	18.98	18.00	26.82	20.24	19.10	.00	.00	20.95
	19.57	18.30	18.98	18.00	28.44	25.56	23.77	6.58	5.76	25.74
Industry Share										
Retail	5.39	10.21	10.37	10.20	5.89	7.32	6.44	9.06	7.94	6.61
Refining & Marketing (1)	26.97	19.89	18.24	22.12	17.73	17.39	27.30	24.74	34.36	23.28
Crude Oil Transportation (4)					.93	2.76	1.16	1.42	.98	1.94
Wellhead Share (2)					4.42	14.44	12.70	17.88	15.66	13.04
Upstream Operations (2)					4.00	13.07	11.50	16.20	14.18	11.81
Imported Crude (3)	34.65	37.18	37.77	35.81	23.51	_	1			
	67.00	67.28	66.38	68.13	56.49	54.97	59.10	69.30	73.12	56.67
Pump Prices	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes

(1) May include some income taxes.

(2) Based on average monthly Alberta purchase price, lagged 60 days.

(3) Reflects industry average import cost by month of loading, lagged 60 days.

(4) Reflects pipeline tariffs and includes an estimated gathering and trucking fee of 0.37cents/litre.

UPSTREAM ISSUES

A. The Pricing of Crude Oil

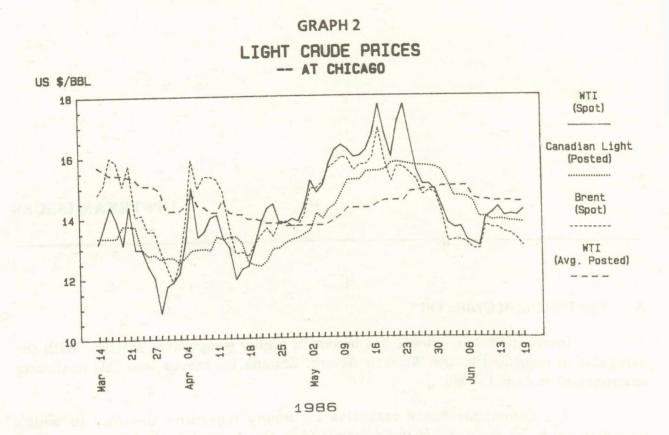
International oil pricing has become a highly complicated matter. With the deregulation embodied in the Western Accord, Canada too moved into this confusing environment on June 1, 1985.

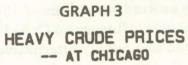
The Committee heard extensive testimony regarding the way in which Canadian crude oil prices are being determined in the deregulated environment. Two factors seem apparent in the domestic pricing scene: the manner in which Canadian crude oil postings are determined has evolved since June of 1985, and the price of West Texas Intermediate (WTI) has the strongest influence on Canadian postings. Canadian refiners with easy access to offshore crude as a supply alternative also closely follow the price of Brent (North Sea) crude.

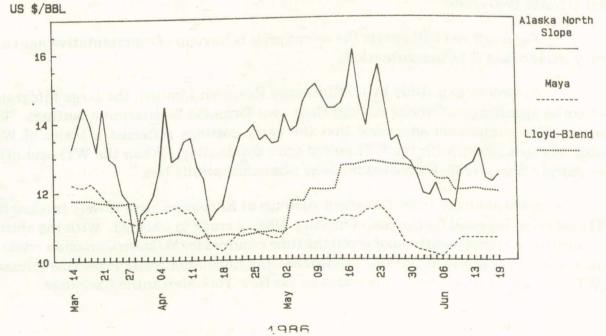
Figures 2 and 3 illustrate the recent price behaviour of representative light and heavy crude oils in the Chicago market.

According to a study by CERI Energy Research Limited, the large integrated companies operating in Canada devised their own formulae to determine postings. The PanCanadian submission suggested that the early postings reflected a blend of WTI posted and spot prices, with the WTI posted price dominating. When the WTI spot price rose sharply late in 1985, Edmonton postings rose substantially less.

Since January 1986, Canadian postings at Edmonton have closely tracked the WTI spot price, adjusted for the cost of moving Alberta crude to Chicago. With the abrupt price decline in recent months, and given the time required for Western Canadian crude to be delivered to refineries in Ontario and Quebec, the Edmonton postings became focussed on WTI spot and futures prices, as reported on the New York Mercantile Exchange.









cce: London Oil Report, as reproduced by Energy, Mines and Resources, Ottawa

It is argued by some that the Chicago price for West Texas Intermediate does not make an appropriate benchmark for Western Canadian crude refined in the West. The CERI report states:

> In the large U.S. market, spot and near-term futures prices have become the market-clearing mechanisms for non-contract and for contract crudes with spot-related pricing. There, Canadian shippers and sellers are marginal suppliers with no control over price. Competition is keen and it is largely a buyers' market.

B. Prorationing and Supplementary Sales

Once a month, buyers of Alberta crude oil "nominate" or file with the Energy Resources Conservation Board (ERCB) the amount they intend to purchase the following month. From this total market demand, the ERCB subtracts the expected supply of synthetic crude, heavy oil, bitumen and pentanes plus — which are not subject to prorationing — to determine the demand for light crude oil. Prorationing is a system whereby this light oil demand is allocated to pools according to a formula based on reserves adjusted for production. The pool allocation is in turn distributed to all the producing wells in the pool, in a manner designed to protect the equity of all producers in that pool. The ERCB monitors the program and applies penalties where operators do not conform to their production allowables.

This system was introduced in 1950 after a series of oil discoveries had led to productive capacity exceeding the capacity of the pipeline system. The petroleum industry requested that the Board (then the Petroleum and Natural Gas Conservation Board) prorate output to market demand.

If there is excess production capacity after the nominations have been made, Alberta producers may sell additional crude oil in "supplementary sales" to buyers in the United States. The supplementary sales program is quite new, introduced on October 1, 1985. Since its inception, the program has averaged sales of about 60,000 barrels per day, or 5% of the sales of Alberta light and medium crude. Over the last two months, supplementary sales have declined as capacity problems in the Western Canadian pipeline systems have restricted most of the petroleum shipped to primary (nominated) oil.

A complicating factor is that refiners can alter their nominations during the month, either taking less crude than initially requested or taking more oil (subject to any limitations on crude oil producibility or pipeline capacity). Refiners are not contractually bound to take the crude they have nominated. This may leave producers with unanticipated shut-in production, unless the oil can be marketed in the supplementary sales program. Supplementary oil generally receives a lower price than primary oil because its availability is less certain.

To protect the producers, the Committee believes that a penalty should be assessed on refiners who do not take the full volume of crude oil nominated.

There is some truth to the claim that prorationing interferes with normal market forces, and that suppliers cannot commit specific volumes of oil to purchasers in longer-term contractual arrangements. Given the present shortfall in pipeline capacity, however, the relevant question becomes: What is the alternative to prorationing? Once Interprovincial Pipe Line overcomes its capacity problem, which the current expansion phase will accomplish in 1987, the need for prorationing will recede.

The ERCB maintains that small producers without the marketing expertise and resources would either be squeezed out of the market or relegated to supplying marginal demand where the returns to producers are lower. Small producers have expressed similar concerns in their testimony before the Committee and are clearly apprehensive at the thought that the prorationing system might be abandoned, a development which most of the majors called for in their Committee appearances.

In the prorationing system, light and medium Alberta crudes are the surge or swing element in the system. Heavy oil, synthetic crude, bitumen and pentanes plus are excluded from prorationing, as is any oil produced outside Alberta. For example, Norman Wells crude is not prorated. Also excluded are approximately 675 older Alberta light pools on "good production practice". These are oil pools in which the sum of the productive capacities of the wells in the pool cannot exceed the total pool allocation — since these pools physically cannot overproduce their allocation, there is no point in carrying out a prorationing calculation for them each month.

The result is that approximately 44% of Western Canada's oil production in 1986 is Alberta light crude subject to prorationing; in 1973, 68% of the total output was prorated. The percentage has been declining with time as the production of light crude has fallen while that of heavy crude, syncrude and bitumen has risen. In time, prorationing will have to be either altered or abandoned as Alberta's remaining proratable crude becomes inadequate to support the system.

Consequently a shrinking subgroup of Alberta light crude pools must absorb all the swings in prorationing. One aspect of this system is that the more productive pools — pools for which production can be readily raised or lowered — carry the burden of prorationing. In the first months of the supplementary sales program, some supplementary oil was marketed in Canada. Several companies bought supplementary oil to make up deficiencies in line fill (oil in the pipeline) and the Alberta Petroleum Marketing Commission at times was forced to sell some royalty crude in the supplementary market to Canadian purchasers. Overall, however, the Board maintains that domestic sales of supplementary oil were sufficiently small that the claim that domestic refiners were using the program to obtain cheaper refinery feedstocks cannot in general be substantiated.

Under the ERCB's current operating rules, the Canadian market is reserved as the primary market; supplementary sales must be directed into the export market. The ERCB now monitors supplementary sales more closely and requires that purchasers of such oil indicate its destination. The ERCB has tightened the supplementary sales program and endeavours to ensure that supplementary sales do not displace higher-value primary sales. Some producers quoted price differentials between Alberta posted and supplementary sales prices as large as Cdn\$3.00 to \$5.00 per barrel. The ERCB maintains that these are extremes and not representative of the average situation.

The prorationing system was subject to abuse in the months following deregulation. The control mechanism on overproduction was not responsive to the rapid changes which occurred in the newly deregulated market. The problem first became evident in June and July of 1985: demand dropped sharply as Canadian postings were initially set too high; even though some production was shut in, too much oil was produced. The ERCB was not monitoring the situation as closely at that time and only became aware of the severity of the problem when IPL had to cut back on its acceptance of oil because of storage problems in the system.

The declining price of oil was further incentive to overproduce, to move oil into the market quickly before its value fell even farther. The extent of abuse of prorationing during the early months of 1986 prompted the ERCB to change its regulatory control of the system. Today the prorationing system has been tightened and stiff penalties for consistent overproduction have been introduced.

C. Enhanced Recovery and Well Suspensions

The ERCB has studied the effect of low prices on enhanced oil recovery. The indication is that this effect will be smaller than feared, even if low prices persist for some years.

Waterflooding, the simplest and most widely used form of enhanced recovery, is economic under most pricing circumstances. More expensive approaches such as LPG (liquefied petroleum gases) floods turned out to be more favourable than expected — with falling prices, LPG has become cheaper to use in oil recovery.

The present Alberta royalty scheme provides strong incentives to practise enhanced oil recovery. It is in the interests of both producer and government to recover as much of the resource as possible. The ERCB also observed that almost no EOR scheme apart from waterflooding would be economic at today's oil prices without this royalty relief.

The Board has therefore concluded that current low prices do not endanger many of Alberta's existing EOR projects under the present royalty arrangement. New schemes are much less likely to be instituted, however, given the front-end investment required at a time when many companies are having cash flow problems.

Another problem is the abandonment or suspension of wells. As oil pools approach the end of their production cycle, well production rates decline and there is an increasing amount of water produced along with the oil. The cost of obtaining oil from these high-ratio water/oil and low-production wells rises and, in the current pricing situation, some of these wells are uneconomic to produce and risk being shut down. Only a very small amount of Western Canada's light crude production has been shut in to date; the impact has been more apparent for heavy crude reservoirs.

If the well is abandoned, that production is permanently lost. Even a suspended well, which can be reopened, typically suffers some loss in productivity. The extra investment in techniques required to recover that output may result in a suspended well remaining out of production, even if there is some rise in oil prices.

In both Canada and the United States there are large numbers of lowproduction wells — wells whose output is so small that they are only marginally profitable to operate. (In the United States, these "stripper wells" are defined as wells capable of producing less than ten barrels per day.) A significant number of low-production wells have already been closed in the United States. In Alberta, roughly one-third of the wells are said to produce 5% of the province's oil and some of these are in danger of being closed down.

DOWNSTREAM ISSUES

Canada finds itself in a special dilemma. Canadian producers are suffering as a result of lower oil prices. Thousands have lost their jobs in our domestic petroleum industry and in related fields. Smaller producers especially risk collapse. Evidence suggests that Canadian producers are receiving among the lowest of crude oil prices for petroleum of comparable quality, placing further stress on this industry.

On the downstream side, the oil companies — including the majors — have told the Committee that current conditions have made product marketing one of their most difficult areas of operation.

As a result of low prices, producers and marketers are experiencing difficulties. Yet it is not clear that Canadian consumers have received the full benefit of falling prices. It has not been demonstrated to the Committee that retail prices have fallen sufficiently quickly or to the full extent of the new international market conditions. This has led the Committee to question whether there are impediments in the market structure of the Canadian petroleum industry's downstream sector, which prevent, to some extent, the flowthrough of crude oil price declines to end users.

A. Competition

The Committee has received a wide range of opinion regarding concentration and the state of competition in the refining and retailing sector. It is frequently contradictory.

The refiners claim that competition is very strong, which may partially explain their relatively low earnings on these activities. The Committee is concerned about the small number of refiners and the trend to refinery closure in Canada over the past decade. This reduction in capacity clearly strengthens the refiners' power in regional markets.

It has not been clearly demonstrated to the Committee that retail outlets operate independently from their suppliers with respect to the determination of retail prices. Most retail stations are affiliated with a major refiner, and it seems this trend is increasing.

While it has not been within the scope of this study to assess the precise degree of competition in the petroleum industry, the Committee nonetheless feels compelled to call for stronger and more enforceable anti-combines legislation, which would lay the ground rules for competition in all segments of the marketplace.

Among a number of concerns, the pronounced integration of the Canadian petroleum industry might be a subject for deeper study. Cost efficiency may require that the relatively small Canadian market be served by only a small number of firms in the refining end of the industry. But one issue that should nonetheless be examined is whether vertically integrated companies are necessary in Canadian circumstances to fulfill the functions and provide the services needed for the production, refining and distribution of petroleum and petroleum products throughout the country. Should integrated companies be broken up into separate and independent upstream, refining and retail enterprises?

The desirability of having refiner-owned retail outlets is unclear. Were retail service stations independently owned and operated, there would likely be more incentive and opportunity to offer the best price and compete for the retail customer. Also, under such a system, it might be easier to monitor the effective monopoly certain refiners hold in regional markets.

The Committee believes that every effort should be made to have the strongest competition in the interest of the consumer and of an efficient allocation of resources. This is particularly germane to the refining and marketing operations of the petroleum industry because many Canadians perceive that competition there is weak. This is also evidenced by concerns echoed in the press which reported dissatisfaction as to the speed and extent to which retail pump prices followed the price of crude oil downward.

The Committee did not investigate this matter deeply enough to form a definitive conclusion. However, certain findings cause the Committee concern: the trend of refinery closures over recent years, the increased concentration in the downstream sector, practices such as the new rack pricing arrangements and the vagueness of explanations relating to retail price determination.

Figure 4 is taken from a paper presented by R.H. Robinson of Loewen, Ondaatje, McCutcheon & Company at the May 8, 1986 Toronto conference on *Oil Prices: Impacts*, *Actions & Responses*. It provides an estimated breakdown of the retail gasoline price in the Toronto area, based upon a crude cost of \$28.00 per barrel in January 1986 and a crude cost of \$15.00 per barrel in April 1986. The analysis assumed that there was not a premature decline in refined product prices leading to inventory losses (i.e., that higherpriced Western Canadian crude had worked its way through the system before savings were passed on to consumers).

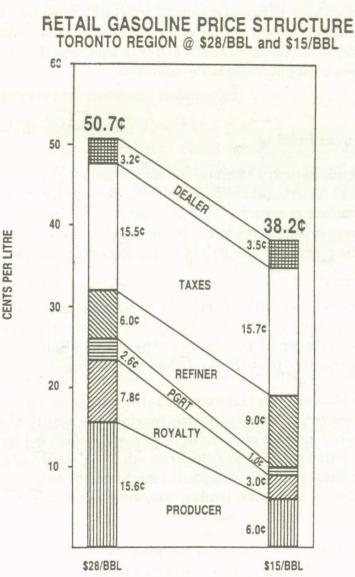


FIGURE 4

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The Committee is inclined to recommend further study to open up the relationship between refineries and distributors. The long-awaited and lengthy report, *Competition in the Canadian Petroleum Industry*, prepared by the Restrictive Trade Practices Commission, and the related evidence and argument documents, contain a wealth of information and technical analysis. There should be continuing surveillance of the industry and follow-up to see what progress is made in implementing the recommendations of the RTPC.

The matter of competition and concentration requires and will be receiving more attention from Parliamentary Committees studying competition policy and bills. This Committee believes that consumers must be convinced that laws and enforcement are effective in maximizing competition. To this end the Committee advocates strong anti-combines legislation as a principal means of protecting consumer interests. Further, the creation of a monitoring group with a mandate to scrutinize pricing behaviour and taxation in the industry — as recommended earlier in this Report — would keep both the industry and consumers aware of competition concerns.

B. Wholesale Product Pricing

The petroleum industry exhibits the characteristics of an oligopolistic market structure, where several large capital-intensive firms account for the greater share of the market according to various measures. Typically barriers to entry and exit are high, and stability of market share is important to the firms, because price wars can be devastating to the point of reducing revenue far below levels necessary to support such capitalintensive enterprises.

Among the practices found worrisome to the Committee is the current system of rack pricing implemented by several of the major refiners. Rack prices are wholesale prices charged to various classes of distributors. The main complaint about this system is that no discounts are permitted from the published rack price list.

On the face of it, one might assume that this one-price-for-all is a desirable and fair arrangement. However, in an oligopolistic market, the ability of purchasers to play off one wholesale supplier against another in price negotiations is vital in order to bring about the lowest transaction price. When the price schedule is published and no discounts are allowed, there is a danger that all companies might decide to announce their prices at the same level as those of the price leader, knowing that they will not secretly be undercut.

Under such arrangements the companies can rest assured that they will not lose any share of the market to competitors (unless there is other non-price competition). The result could be transaction prices at higher levels than negotiated prices would have yielded. This would be to the detriment of consumers.

C. Role of Independent Marketers

It is the Committee's view that the market position of independent marketers should be strong in the interest of maximizing competition. When only a few firms dominate an industry, it is important to guarantee independent operators full access to product supply on terms no worse than those which apply to the refiners' dealings with its own affiliated divisions. This includes not only price, but also promptness of information and delivery. Canadian refiners should not have higher prices for domestic product sales than for export sales.

D. Exchange Agreements Between Refineries

Independent distributors raised the issue of product exchanges between refineries reducing the supply of product to which independents have access. Rather than shipping product from a parent refinery to its distant retail outlets, refiners make "swap" or exchange agreements with each other so that product from the nearest refinery is supplied to retail outlets of other companies nearby.

Refiners say exchanges are necessary in order to preserve competition, as they allow refiners to operate retail outlets in markets far from their refineries; and that exchanges reduce costs, because the refiner does not have to incur high transport costs shipping products to outlets in a retail chain located in distant markets.

However, if swaps were not allowed, the same amount of product would be produced and the same areas would be served. The important difference is that more local independent companies would be doing the retailing rather than the big service station chains.

While raising this as an issue, the Committee notes the conclusion of the Restrictive Trade Practices Commission, that the nature and extent of inter-refiner supply agreements do not give rise to competition problems that require general prohibitions or advance approvals.

E. Product Imports/Exports

The Committee believes that open access to imported refined product is an important means of strengthening competition within Canada. If a viable import option exists, there will always be an alternative to purchasing product from Canadian refiners who hold a high degree of market power. This should have a moderating effect on the price demands of the Canadian refiners who are, after all, in business to sell their product, and must therefore price themselves at levels the same as or better than the foreign competition.

F. Retail Gasoline Prices

The Committee does not believe that a complete description of how gasoline pump prices are determined arose during its hearings. This is a very complex matter. It is definitely not as simple as counting the travel time from the well-head to the gas pump. It appears that while input and operating costs are important factors, the critical factor in determining prices at the retail gasoline pump is the degree of competition in the local markets.

Table 3 indicates how the retail price of regular leaded gasoline has varied by province since 1971. An average value for Canada is included in the presentation. The price differentials from province to province are greater than can be accounted for by transportation and distribution costs and provincial taxes.

The Committee advocates whatever arrangements would put the greatest ability to act aggressively and competitively in the hands of individual service station operators, so that they have effective power to determine their prices and compete for customers.

The Committee is concerned about the degree of influence on retail pump prices exerted by the refiners, including the trend to more instances of managed accounts, whereby refiners operate stations under a number of brand names in the same market area. Also, the practice of selling surplus retail outlets under "non-petroleum use covenants" (which prevent new owners from using the site to sell gasoline products) should be prohibited.

TABLE 3

Representative Retail Prices Regular Leaded Gasoline By Province 1971 - 1986

Cents Per Litre

PERIOD	NFLD	PEI	NS	NB	QUE	ONT	MAN	SASK	ALTA	BC	CANADA
1971	13.2		11.6	11.7	10.7	11.5	11.1	11.5	10.6	10.9	11.2
1972	13.6		12.0	12.0	10.6	11.7	11.3	11.7	10.8	11.2	11.3
1973	14.3	13.8	12.9	12.9	11.6	12.3	11.8	11.7	11.4	11.8	12.0
1974	16.4	15.3	14.5	14.8	14.1	14.3	13.0	12.9	12.5	13.4	13.9
1975	18.9	17.9	16.8	16.9	15.7	16.3	15.3	14.8	15.1	15.6	15.9
1976	21.0	20.1	19.0	18.2	17.5	18.2	17.6	17.0	16.7	17.0	17.7
1977	22.9	21.7	20.9	20.0	18.9	19.6	18.8	19.1	17.6	18.9	19.2
1978	24.3	23.3	21.8	21.5	19.9	20.3	19.6	20.7	17.0	19.7	20.0
1979	26.1	24.9	23.6	23.0	22.3	22.5	21.0	22.0	17.8	21.5	21.9
1980	30.5	29.2	27.4	26.2	26.3	26.6	25.3	26.1	21.0	26.0	25.9
1981	40.3	40.4	36.1	35.3	36.7	35.8	34.2	35.8	28.8	36.0	35.3
1982	47.9	48.1	44.6	42.5	49.1	42.3	39.4	37.2	34.3	42.1	42.9
1983	52.6	52.2	49.5	48.2	52.7	43.7	45.5	38.6	38.9	45.8	45.9
1984	55.2	55.2	52.1	49.4	54.9	46.2	46.5	42.0	40.9	50.0	48.4
1985 JAN	58.5	58.5	56.1	53.9	58.9	50.2	48.0	45.3	42.4	53.6	51.9
FEB	59.0	59.1	56.2	54.9	59.3	49.2	43.8	45.8	42.6	52.1	51.4
MAR	59.1	57.1	56.3	55.3	59.3	49.0	47.3	45.8	42.5	47.4	51.0
APR	59.4	57.0	57.3	51.7	55.2	47.8	52.2	45.9	43.6	54.2	50.5
MAY	59.4	56.9	56.4	50.2	56.9	45.9	52.2	45.9	44.0	54.2	50.2
JUN	59.1	56.5	56.0	49.2	56.3	46.1	51.5	45.3	44.3	53.6	50.0
JUL	58.9	56.2	56.0	49.0	56.3	44.4	49.3	45.3	43.3	53.8	49.2
AUG	58.9	56.2	55.8	51.5	56.1	46.2	46.9	40.2	42.3	53.6	49.3
SEP	60.9	58.4	57.7	55.9	57.8	49.1	52.9	43.7	43.6	55.6	51.8
OCT	61.3	58.8	57.7	58.9	57.8	49.5	54.1	43.8	44.6	55.6	52.2
NOV	61.5	58.7	57.7	58.9	58.4	50.2	53.1	44.1	45.3	55.5	52.7
DEC	62.6	58.9	58.1	59.8	58.4	50.7	54.2	44.4	45.6	55.5	53.0
AVERAGE	59.9	57.7	56.8	54.1	57.6	48.2	50.5	44.6	43.7	53.7	51.1
1986 JAN	63.6	59.5	58.1	60.8	58.6	50.3	54.7	44.8	46.0	56.3	53.2
FEB	63.2	59.1	57.7	60.8	58.9	51.0	54.6	44.7	47.1	55.3	52.8(1)
MAR	60.4	56.2	54.9	57.9	56.2	46.9	51.6	41.6	44.0	52.8	50.5(1)
APR	53.7	49.7	50.1	52.8	50.1	40.2	45.4	30.9	36.4	45.7	43.8

NOTE (1): These two values were obtained from the Oil Pricing & Market Analysis Division, EMR, June 3, 1986.

SOURCE: Energy Mines and Resources, Ottawa, as submitted to the Committee by the Government of Newfoundland and Labrador.

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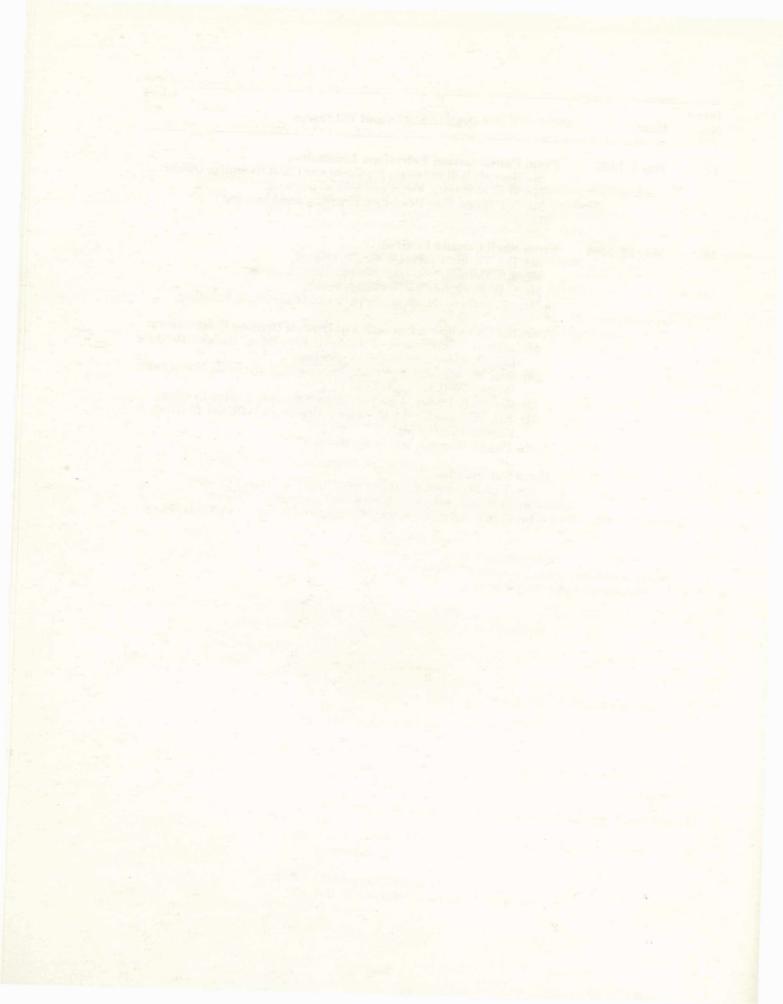
APPENDIX A

WITNESSES

Issue No.	Date	Organizations and Witnesses
20	March 6, 1986	 From the Department of Energy, Mines and Resources: Mr. Robert Skinner, Assistant Deputy Minister, Energy Commodities Sector; Mr. David Oulton, Director General, Oil Branch, Energy Commodities Sector; Mr. Jacques Rochon, Chief, Federal-Provincial-Territorial Energy Relations, Energy Policy Analysis Sector; Mr. Mark von Schellwitz, Research Assistant, Office of the Minister.
		From Northridge Petroleum Marketing, Inc.: Mr. D.W. Minion, Chairman; Mr. Robert W. McKenzie, Controller; Mr. Eric Hobson, General Manager, Crude Oil Operations.
		 From the National Energy Board: Mr. Roland Priddle, Chairman; Mr. W.A. Scotland, Associate Vice Chairman of the Board and Chairman of the Standing Panel on Oil; Mr. Peter Miles, Director General, Energy Regulation; Mr. Ross White, Director, Oil Branch; Mr. Alan Hiles, Director, Energy Supply Branch; Mr. Jean Morel, Legal Counsel.
21	March 20, 1986	From BP Canada Inc.: Mr. M.A. Kirkby, President and Chief Executive Officer; Mr. D.W. Mann, Manager, Planning - Oil and Gas Division, Business Development Department.
23	April 14, 1986	Mrs. Cora McAra and Mr. George McAra, Former Petro-Canada operators.

Issue No.	Date	Organizations and Witnesses
23	April 14, 1986 (Cont.)	From the Petroleum Marketers Association of Canada: Mr. James R. Conrad, Executive Vice- President; Mr. Rick Hammond, T.G. Hammond Ltd.; Mr. G.J. Overvelde, Francis Fuels Ltd.
		From the Canadian Automobile Association: Mr. R.B. Erb, Executive Vice-President; Mr. Michael McNeil, Director, Public Relations and Government Affairs;
		Mr. Richard Godding, Director, Technical and Travel Services; Mr. Georges Lozano, Manager, Information Services.
24	April 21, 1986	From Universal Explorations (83) Ltd.: Mr. J.A. Mercier, President.
		From Strand Oil & Gas Ltd.: Mr. Dennis R. Gieck, President.
25	April 28, 1986	From Esso Petroleum Canada: Mr. G.H. Thomson, President; Mr. Roger Purdie, Vice-President, Marketing; Mr. Don Penrose, Vice-President, Planning and Administration.
		From Texaco Canada Inc. Mr. Stuart J. Walker, Senior Vice-President; Mr. Colin C. Wild, General Manager, Supply and Distribution; Mr. Douglas W. Maddock, Federal Government Relations.
		From Texaco Canada Resources: Mr. Neal H. Eggen, Senior Vice-President.
26	May 5, 1986	From Husky Oil Limited: Mr. Arthur R. Price, President; Mr. J. Tom Graham, Manager, Heavy Oil Engineering, Heavy Oil Division; Mr. D.O. Gurel, Manager, Production.
		 From Petro-Canada Inc.: Mr. R.J. Mayo, President, Petro-Canada Products Division; Mr. G.N. Beauregard, Senior Vice-President, Eastern Region, Petro- Canada Products Division; Mr. W.R. Twiss, Vice-President, Corporate Planning, Petro-Canada Inc. Mr. J.F. Bechtold, Senior Director, Supply Co-ordination, Petro- Canada Products Division.
		From Ultramar Canada Inc.: Mr. L.D. Woodruff, Chairman of the Board.

Issue No.	Date	Organizations and Witnesses
27	May 6, 1986	From PanCanadian Petroleum Limited: Mr. Bartlett B. Rombough, President and Chief Executive Officer; Mr. W.C. Reinwart, Vice-President, Marketing; Mr. R.J. Innes, Vice-President, Economy and Planning.
28	May 12, 1986	From Shell Canada Limited: Mr. D.J. Taylor, Executive Vice-President; Mr. J.A. Holmes, Manager, International Trading; Mr. C.W. Pegg, Advisor, Business Issues; Mr.J.A. Dickson, Manager, Supplies and Operations Planning.
		 From the Canadian Association of Oilwell Drilling Contractors: Mr. John A. Niedermaier, President; President, Badger Drilling Ltd.; President, Petro Well Servicing; Mr. Ron W. Waye, Chairman, Service Rig Division; President, Widney Well Servicing Ltd.; Mr. Gordon R. Rowan, Vice-President; President Cactus Drilling; Mr. J.G. Williams, Past President; President ADECO Drilling & Engineering Co. Ltd.; Mr. Don M. Herring, Managing Director.
		From Suncor Inc.: Mr. T.H. Thomson, President and Chief Executive Officer; Mr. H.B. Maxwell, Vice-President, Government Affairs; Dr. G.A.T. Allan, Director, Planning and Control, Oil Sands Group.



SUBMISSIONS

The Committee received submissions from the following groups and individuals:

ALBERTA, GOVERNMENT OF, ENERGY RESOURCES CONSERVATION BOARD, Calgary, Alberta

AIR TRANSPORT ASSOCIATION OF CANADA, Calgary, Alberta

BP CANADA INC., Toronto, Ontario

CANADIAN AUTOMOBILE ASSOCIATION, Ottawa, Ontario CANADIAN ASSOCIATION OF OILWELL DRILLING CONTRACTORS, Calgary, Alberta

ESSO PETROLEUM CANADA, Toronto, Ontario EXTERNAL AFFAIRS, DEPARTMENT OF, Ottawa, Ontario

GALLAGHER, MR. J.P., Calgary, Alberta

HUNTER, MR. L.J., Vancouver, British Columbia HUSKY OIL LIMITED, Calgary, Alberta

INDEPENDENT PETROLEUM ASSOCIATION OF CANADA, Calgary, Alberta INTERPROVINCIAL PIPE LINE LIMITED, Toronto, Ontario

McARA, MRS. CORA AND MR. GEORGE, Gravenhurst, Ontario

NATIONAL ENERGY BOARD, Ottawa, Ontario NEW BRUNSWICK, GOVERNMENT OF, MINISTRY OF FORESTS, MINES & ENERGY, Fredericton, New Brunswick

NEWFOUNDLAND AND LABRADOR, GOVERNMENT OF, DEPARTMENT OF MINES AND ENERGY, St. John's, Newfoundland

PANCANADIAN PETROLEUM LIMITED, Calgary, Alberta PETRO-CANADA INC, Calgary, Alberta PETROLEUM MARKETERS ASSOCIATION OF CANADA, Toronto, Ontario

QUEBEC, GOVERNMENT OF, MINISTRY OF ENERGY AND RESOURCES, Quebec, Quebec

SHELL CANADA LIMITED, Calgary, Alberta SUNCOR INC., Toronto, Ontario

TEXACO CANADA LTD., Don Mills, Ontario

ULTRAMAR CANADA INC., Don Mills, Ontario UNIVERSAL EXPLORATIONS LTD., Calgary, Alberta

Respectfully submitted,

Earl A. Hastings Chairman APPENINSB .

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MINUTES OF PROCEEDINGS

TUESDAY, MAY 13, 1986 (58)

The Standing Senate Committee on Energy and Natural Resources met at 12:15 p.m. this day *in camera*, the Deputy Chairman, the Honourable R. James Balfour, presiding.

Members of the Committee present: The Honourable Senators Adams, Balfour, Hays, and Olson. (4)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was—

Ordered, that the Committee meet in camera.

Messrs. Dean Clay and Lawrence Harris made a statement and answered questions.

At 12:55 p.m., the Committee adjourned to the call of the Chair.

TUESDAY, MAY 27, 1986

(59)

The Standing Senate Committee on Energy and Natural Resources met at 12:00 p.m. this day *in camera*, the Deputy Chairman, the Honourable R. James Balfour, presiding.

Members of the Committee present: The Honourable Senators Adams, Balfour, Barootes, Doody, Kenny, Lefebvre, and Olson. (7)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was— Ordered, that the Committee meet *in camera*.

The Committee considered its Draft Report.

At 1:11 p.m., the Committee adjourned to the call of the Chair.

THURSDAY, MAY 29, 1986 (60)

The Standing Senate Committee on Energy and Natural Resources met at 12:00 p.m. this day *in camera*, the Chairman, the Honourable Senator Earl A. Hastings, presiding.

Members of the Committee present: The Honourable Senators Adams, Barootes, Doody, Hastings, Hays, Kenny and Lefebvre. (7)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was-

Ordered, that the Committee meet in camera.

The Committee considered its Draft Report.

At 3:15 p.m., the Committee adjourned to the call of the Chair.

TUESDAY, JUNE 3, 1986 (61)

The Standing Senate Committee on Energy and Natural Resources met at 12:00 p.m. this day *in camera*, the Chairman, the Honourable Senator Earl A. Hastings, presiding.

Members of the Committee present: The Honourable Senators Balfour, Hastings, Kenny, Lefebvre and Olson. (5)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was—

Ordered, that the Committee meet in camera.

The Committee considered its Draft Report.

At 1:15 p.m., the Committee adjourned to the call of the Chair.

THURSDAY, JUNE 5, 1986 (63)

The Standing Senate Committee on Energy and Natural Resources met at 12:00 p.m. this day *in camera*, the Chairman, the Honourable Senator Earl A. Hastings, presiding.

Members of the Committee present: The Honourable Senators Adams, Balfour, Hastings, Kenny, Lefebvre, Lucier and Olson. (7)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was— Ordered, that the Committee meet *in camera*.

The Committee considered its Draft Report.

At 2:00 p.m., the Committee adjourned to the call of the Chair.

MONDAY, JUNE 9, 1986 (64)

The Standing Senate Committee on Energy and Natural Resources met at 10:00 a.m. this day *in camera*, the Chairman, the Honourable Senator Earl A. Hastings, presiding.

Members of the Committee present: The Honourable Senators Adams, Balfour, Barootes, Doody, Hastings, Hays, Kenny, Lefebvre and Olson. (9)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was— Ordered, that the Committee meet *in camera*.

The Honourable Senator Kenny moved that submissions received from groups or individuals who did not appear before the Committee be published in a separate Issue of Proceedings.

The question being put on the motion, it was— Resolved in the affirmative.

The Committee considered its Draft Report.

At 2:40 p.m., the Committee adjourned to the call of the Chair.

WEDNESDAY, JUNE 11, 1986 (65)

The Standing Senate Committee on Energy and Natural Resources met at 6:00 p.m. this day *in camera*, the Chairman, the Honourable Senator Earl A. Hastings, presiding.

Members of the Committee present: The Honourable Senators Adams, Balfour, Barootes, Doody, Hastings, Hays, Kenny, and Lefebvre. (8)

In attendance: From the Committee Research Office: Mr. Dean Clay (Science and Technology); Mr. Lawrence Harris (Economics); From the Office of the Chairman: Ms. Karen Wheeler, Administrative Assistant to the Committee.

The Committee, in compliance with the Order of Reference dated December 18, 1984, resumed its review of all aspects of the National Energy Program, including its effects on energy development in Canada.

It was-

Ordered, that the Committee meet in camera.

The Committee considered its Draft Report.

The Honourable Senator Balfour moved that draft report, as amended under the direction of the Chairman and Deputy Chairman, be adopted as the Fifth Report of the Committee and that, pursuant to Rule 78(1), the Report be tabled in the Senate.

The question being put on the motion, it was— Resolved in the affirmative.

The Honourable Senator Lefebvre moved that the Committee print 4,000 copies in both official languages of the Report as a regular Issue of Proceedings with a special cover.

The question being put on the motion, it was— Resolved in the affirmative.

At 10:05 p.m., the Committee adjourned to the call of the Chair.

ATTEST:

Timothy Ross Wilson

Clerk of the Committee