



National Energy Board

Reasons for Decision

**Interprovincial Pipe Line
Company, a division of
Interhome Energy Inc.**

GHW-5-90 and RH-3-90

February 1991

Facilities and Tolls

National Energy Board

Reasons for Decision

In the Matter of

**Interprovincial Pipe Line Company, a
division of Interhome Energy Inc.**

Application for facilities to accumulate and inject natural gas liquids and for the toll design applicable thereto and an application by the Prospective Shippers regarding conditions of access to the applied-for facilities

GHW-5-90 and RH-3-90

February 1991

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Abbreviations

the Act	<i>National Energy Board Act</i>
Amoco	Amoco Canada Petroleum Company Ltd.
APMC	Alberta Petroleum Marketing Commission
CanStates	CanStates Energy
CEMJV	Cochin Ethane Marketing Joint Venture
CPA	Canadian Petroleum Association
Dome	Dome Petroleum Limited
EARP Guidelines Order	<i>Environmental Assessment and Review Process Guidelines Order</i>
EIA	Environmental Impact Assessment
FSA	Facilities Support Agreement
Gulf	Gulf Canada Resources Limited
ha	hectare(s)
IPAC	Independent Petroleum Association of Canada
IPL	Interprovincial Pipe Line Company, a division of Interhome Energy Inc.
Lakehead	Lakehead Pipe Line Company, Inc.
m	metre(s)
M ³	cubic metre(s)
10 ³ m ³	thousand cubic metres
m ³ /d	cubic metre(s) per day
mm	millimetre(s)
Marengo	Marengo Consulting Ltd.
NEB or the Board	National Energy Board
NGL	natural gas liquids

PanCanadian	PanCanadian Petroleum Limited
Petro-Canada	Petro-Canada Inc.
Polysar	Polysar Hydrocarbons Limited
Purvin & Gertz	Purvin & Gertz, Inc.
Rimbey	Rimbey Pipeline Co. Ltd.
Shell	Shell Canada Limited
Shell Products	Shell Canada Products Ltd.
WSFJV	Windsor Storage Facility Joint Venture
RHW-1-89 IPL Reasons for Decision	National Energy Board Reasons for Decision in the Matter of a study entitled "A Toll Design Study and Recommendations in Response to NEB Reasons for Decision RH-4-86" submitted on 29 June 1988 by Interprovincial Pipe Line Company, a division of Interhome Energy Inc., November 1989
RH-4-86 IPL Reasons for Decision	National Energy Board Reasons for Decision in the Matter of an application by Interprovincial Pipe Line Limited for certain orders respecting tolls and tariffs pursuant to Part IV of the National Energy Board Act, June 1987
MH-5-85 Dome Reasons for Decision	National Energy Board Reasons for Decision in the Matter of a Public Hearing into the Matter of Certain Terminal, Storage and Related Facilities Owned or Leased and Operated by Dome Petroleum Limited in Windsor, Ontario, January 1986

Recital, Active Participants and Appearances

IN THE MATTER OF the *National Energy Board Act* ("the Act) and the regulations made thereunder; and

IN THE MATTER OF an application by Interprovincial Pipe Line Company, a division of Interhome Energy Inc. ("IPL"), dated 30 April 1990, for an order exempting certain proposed additional pipeline facilities from provisions of certain sections of the Act pursuant to section 58 thereof; and for an order pursuant to section 59 of the Act respecting the methodology of toll calculation for the proposed facilities; filed with the Board under File No. 3400-J1-14; and

IN THE MATTER OF an application by the Prospective Shippers dated 22 May 1990, pursuant to subsections 58(3) and 71(1) of the Act for an order granting unapportioned access to the proposed facilities; and

IN THE MATTER OF the National Energy Board's Directions on Procedure GHW-5-90 and RH-3-90, as amended.

GHW-5-90 EXAMINED by means of written submissions.

RH-3-90 HEARD in Edmonton, Alberta on 12, 13, 14, 15, 16, 17 November 1990.

BEFORE:

R. Priddle	Presiding Member
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R.B. Horner, Q.C.	Member
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W.G. Stewart	Member
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ACTIVE PARTICIPANTS - GHW-5-90:

Interprovincial Pipe Line Company, a division of Interhome Energy Inc.
The Airlines: Air Canada and Canadian Air Lines International Ltd.
Alberta Petroleum Marketing Commission
Amoco Canada Petroleum Company Ltd.
Canadian Petroleum Association
Canadian Hunter Exploration Ltd.
CanStates Energy
Encor Energy Corporation Inc.
Independent Petroleum Association of Canada
Minister of Energy for Ontario
PanCanadian Petroleum Limited
Petro-Canada Inc.
Polysar Hydrocarbons Limited
Shell Canada Limited

APPEARANCES - RH-3-90:

A. Trawick L.G. Schafer	Interprovincial Pipe Line Company, a division of Interhome Energy Inc.
D.G. Davies	Prospective Shippers: CanStates Energy; Chevron Canada Resources; Encor Energy Corporation Inc.; Esso Petroleum Canada, a division of Imperial Oil Limited; Gulf Canada Resources Limited; Home Oil Company Limited; Husky Oil Operations Ltd.; Mobil Oil Canada; and Soligaz Inc.
L.L. Manning	Alberta Petroleum Marketing Commission
D.A. Holgate W. Moreland	Amoco Canada Petroleum Company Ltd.
D.B. Macnamara	Canadian Petroleum Association
D.G. Hart, Q.C.	CanStates Energy
A. Sears	Dow Chemical Canada Inc.
G.B. Scott	Gulf Canada Resources Limited
C.S. Sardo	Husky Oil Operations Ltd.
R.W. Scott	ICG Propane Inc.
L.G. Keough	Independent Petroleum Association of Canada
R.L. Penfield	Mobil Oil Canada
R.J. Ollenberger	PanCanadian Petroleum Limited
S. Miller	Petro-Canada Inc.
R.G. Drummond	Polysar Hydrocarbons Limited
J. Robitaille	Le procureur général du Québec
E.S. Decter	Shell Canada Limited
S. Scott	National Energy Board

Overview

(Note: This overview is provided solely for the convenience of the reader and does not constitute part of these Reasons for Decision, for which readers are referred to the detailed text and tables.)

Interprovincial Pipe Line Company, a division of Interhome Energy Inc. ("IPL"), applied to the National Energy Board ("the Board"), on 30 April 1990, for authorization to construct and operate facilities for the accumulation and subsequent injection of natural gas liquids ("NGL") into the IPL Line I pipeline. Concurrently, IPL applied for approval of its proposed toll methodology in respect of the applied-for facilities. The proposed facilities would be located near IPL's existing Edmonton, Alberta terminal.

IPL indicated that a group of prospective shippers had approached it with a request that it construct and operate the proposed facilities. After canvassing all potential NGL shippers to determine the volumes that would be tendered, IPL agreed to proceed with the project on the basis that the prospective shippers enter into a Facilities Support Agreement ("FSA") with it. Nine parties, referred to as the Prospective Shippers, entered into the agreement with IPL. The FSA stipulates that, for a 15-year term, the Prospective Shippers will provide certain financial support to IPL in the event their NGL shipments fail to meet the respective volumes stipulated for each shipper in the FSA.

On 22 May 1990, the Prospective Shippers requested that the Board include, in any order authorizing the proposed NGL facilities, a condition whereby nominations by the Prospective Shippers, up to their respective contract volumes, not be subject to apportionment as a result of nominations made by shippers not party to the FSA. This request is referred to as an application for "unapportioned access".

The Board heard evidence and submissions in respect of the applications through a written hearing held pursuant to Hearing Order GHW-5-90 and through an oral hearing held in Edmonton from 12 to 17 November 1990 pursuant to Hearing Order RH-3-90, as amended.

The Board has found the NGL facilities applied for by IPL to be required by the present and future public convenience and necessity, and has authorized their construction. The Board has found that the facilities are needed primarily to provide open access for the injection of NGL into IPL's common-carrier pipeline system.

The Board has approved the Prospective Shippers' application for unapportioned access to the proposed facilities, in view of the obligations imposed on them through the FSA. Any changes which may be made to the FSA must be filed with the Board which will then decide whether the amended FSA would continue to provide justification for the Prospective Shippers' receiving unapportioned access.

The Board has rejected IPL's proposed toll design for the applied-for NGL facilities. That proposal would have rolled in to IPL's general revenue requirement an amount of costs representing those which would have been incurred if the facilities had been for light crude oil. It would then have

collected through an NGL surcharge, to be levied only on volumes using the facilities, those costs in excess of the "light-crude equivalent". The Board has approved a stand-alone toll design whereby all of the costs of the proposed facilities will be borne by the users. The Board concluded that a stand-alone toll would most closely adhere to the principle that the tolls should be cost-based to avoid unjust discrimination.

Chapter 1

Introduction

1.1 The Applications

By an application dated 30 April 1990, Interprovincial Pipe Line Company, a division of Interhome Energy Inc. ("IPL"), applied to the National Energy Board ("NEB" or "the Board") for:

1. an order pursuant to Part III section 58 of the *National Energy Board Act* (the "Act"), exempting IPL from paragraph 30(1)(a) and subsections 31(a), 31(c) and 31(d) of the Act, authorizing the construction and operation of the natural gas liquids ("NGL") batch-accumulation and injection facilities proposed in the application; and
2. an order pursuant to Part IV section 59 of the Act, approving IPL's proposed toll methodology in respect of the applied-for facilities.

The proposed facilities would permit IPL to receive and accumulate NGL at Edmonton, Alberta and, subsequently, to inject batches of NGL into Line I for transportation eastward. The facilities would consist of a series of nine buried cylindrical storage vessels, each 350 m in length and 2.032 m in diameter; a 2 100 m long 457 mm diameter fill line; a 1 300 m long 508 mm diameter pump-out line; and associated appurtenances. The facilities would be capable of storing up to 9 900 m³ of NGL and would be designed to operate on a five-day batch cycle based on NGL receipts of 1 750 m³/d expected by IPL. The location and design of the proposed facilities is depicted in Appendices I, II and III which follow the text of these Reasons. The capital cost of the facilities was estimated by IPL to be \$18,044,000.

The toll methodology proposed by IPL would split the capital cost of the facilities between those which would be required to provide receipt terminalling and tankage facilities for a similar volume of light crude petroleum and those additional expenditures necessary to provide such facilities for NGL. The expenditures required for a light-crude facility would be included in the general rate base. The corresponding revenue requirement would be recovered through system tolls according to IPL's existing toll design. The revenue requirement attributable to the additional expenditures arising because of the particular characteristics of NGL would be recovered through an NGL Receipt Facilities Surcharge applied only to volumes using the proposed facilities.

IPL indicated that a group of prospective shippers initially approached it with a request that it construct and operate facilities for accumulating and injecting NGL into its pipeline. After canvassing industry-wide to determine the volumes that would be tendered, and after evaluating other factors it considered relevant, IPL decided that the project was viable. IPL agreed to proceed with the project and to file the necessary application with the Board on the basis that prospective shippers enter into a

Facilities Support Agreement ("FSA") with IPL. Nine prospective shippers entered into the agreement. They are referred to herein as the Prospective Shipper¹. The FSA stipulates that, for a 15-year term, the Prospective Shippers will provide certain financial support to IPL in the event their NGL shipments fail to meet the volumes stipulated for each shipper in the FSA.

In a letter dated 22 May 1990, the Prospective Shippers requested the Board to include, in any order authorizing the NGL facilities applied for by IPL, a condition whereby nominations by the Prospective Shippers, for volumes up to the contract quantity stipulated for each shipper in the FSA, not be subject to apportionment as a result of nominations made by shippers not party to the FSA. This request was made pursuant to subsections 58(3) and 71(1) of the Act and is referred to herein as an application for "unapportioned access". The Prospective Shippers indicated that, in their view, it would be unfair and inequitable to apportion access to the applied-for facilities as a result of nominations made by other shippers that are not parties to the FSA. The Prospective Shippers further indicated that, if such apportionment were permitted to occur, significant and prolonged reductions in their NGL deliveries to eastern markets could result.

1.2 The IPL Pipeline System

IPL owns and operates a pipeline system for the transportation of various liquid hydrocarbons, on a common-carrier basis, eastward From Edmonton. The portion of the system located within the United States of America is owned and operated by Lakehead Pipe Line Company, Inc. ("Lakehead"), a wholly-owned subsidiary of Interhome Energy Inc. An IPL - Lakehead system map is shown in Appendix IV.

Between Edmonton and the international boundary near Gretna, Manitoba and on to Superior, Wisconsin on the Lakehead portion, the system essentially consists of three parallel pipelines (Lines 1, 2 and 3). Portions of a fourth line currently exist as a series of discontinuous loops. Movement of liquids beyond Superior is accomplished via either the Lakehead north line (Line 5) or the Lakehead south line (Line 6), and requires the use of breakout storage at Superior. Lines 5 and 6 eventually cross the international boundary at the St. Clair river near Marysville, Michigan and extend to IPL's terminal in Sarnia, Ontario. Other IPL lines are in place to serve delivery points in Ontario and Quebec from Sarnia.

Line I is the pipeline used by IPL to transport NGL from Alberta. As well, this line is used to move a range of refined petroleum products and synthetic crude oil. It is operated in a batch mode. Although Line I began operating in 1950, movements of NGL did not commence until 1970.

The conditions under which NGL movements presently occur on IPL are the result of prior negotiations that took place between IPL and Dome Petroleum Limited ("Dome"). Dome, now Amoco Canada Petroleum Company Ltd. ("Amoco"), is the principal owner and the operator of the facilities in Edmonton required to accumulate and supply batches of NGL to IPL at Line I flow rate. Amoco also owns and operates the NGL breakout storage facilities required at Superior. IPL provides the receipt

¹ The Prospective Shippers party with IPL to the FSA dated 28 February 1990 are: CanStates Energy, Chevron Canada Resources, Encor Energy Corporation Inc., Esso Petroleum Canada, a division of Imperial Oil Limited, Gulf Canada Resources Limited, Home Oil Company Limited, Husky Oil Operations Ltd., Mobil Oil Canada, and Soquip, Petromont and Company Limited, Noverco Inc. and SNC Inc., collectively referred to as "Soligaz".

and delivery terminalling services, and the transmission service in Canada. To date, Amoco has been the only NGL shipper on the IPL system.

1.3 The GHW-5-90 and RH-3-90 Hearings

On 28 June 1990, the Board approved Order GHW-5-90 setting the Part III section 58 portion of IPL's application down for a hearing by written submissions. In addition, the Board indicated it had decided to examine the issues arising from the Part IV section 59 portion of IPL's application, as well as the Prospective Shippers' application under subsections 58(3) and 71(1) for unapportioned access, as part of IPL's Class 3 toll hearing then scheduled for the fall of 1990. A decision combining the Part III and Part IV aspects of these applications would then be issued.

On 31 July 1990, the Board received a request from IPL to defer the Class 3 toll hearing due to the impact on toll determination of a proposed corporate restructuring. The Board granted IPL's request for a deferral of the Class 3 toll hearing and, on 23 August 1990, issued Order RH-3-90 setting down for public hearing the Part IV issues arising from the applications of IPL and the Prospective Shippers. The Board also, on 23 August 1990, issued Order PO-I-GHW-5-90 establishing the procedure to be followed for the environmental screening of the applied-for facilities.

Upon considering a submission from the Independent Petroleum Association of Canada ("IPAC"), the Board issued, on 28 September 1990, Order AO-I-RH-3-90 amending Hearing RH-3-90. The effect of this amendment was to provide for the examination of the Part III issue of the need for the applied-for facilities within the scope of the RH-3-90 hearing. Concurrently, the Board incorporated the evidentiary record of the GHW-5-90 proceedings into that of RH-3-90.

The RH-3-90 proceedings were heard in Edmonton, beginning on 12 November 1990 and terminating with final argument on 17 November 1990.

1.4 Structure of these Reasons for Decision

The Board's views and finding with respect to the Environmental Impact Assessment submitted by IPL in Chapter 2. The positions of parties, as well as the Board's views and findings on each significant issue with respect to other Part III matters, appear in Chapters 3 through 6. The Board's views and findings form the basis of the Part III Decision rendered in Chapter 7. Part IV matters are dealt with separately in Chapters 8 through 10.

Chapter 2

Environmental Matters

2.1 Environmental Assessment

IPL submitted an Environmental Impact Assessment ("EIA") for the proposed underground NGL batch-accumulation and injection facilities. The environmental description, assessment and recommendations contained in IPL's EIA provided information regarding climate, physiography, geology and soils, hydrology and fish, vegetation, wildlife, land use, historical resources and air quality. IPL adopted procedures and measures to prevent or mitigate adverse environmental impacts resulting from the project. IPL also undertook to ensure that these procedures and measures would be implemented in an environmentally-responsible manner by identifying procedures for environmental monitoring.

The consideration of the environmental effects of this application included an environmental screening pursuant to the *Environmental Assessment and Review Process Guidelines Order* ("EARP Guidelines Order"). That screening was done by written submission in accordance with Order PO-I-GHW-5-90, in conjunction with the Board's consideration of the environmental effects pursuant to its mandate under Part III of the Act. No opposition or public concern was advanced regarding the proposed project.

Views of the Board

After examining IPL's EIA, it is the view of the Board that IPL provided adequate environmental information on which to make a determination of the potential environmental effects of the construction and operation of the proposed NGL facilities and to plan the implementation of procedures and measures to prevent or mitigate these effects.

In addition, the Board is satisfied that IPL has provided adequate information to satisfy the environmental screening requirements of the EARP Guidelines Order.

2.2 Land Use

The proposed NGL batch-accumulation vessels would be situated on lands owned by IPL which are currently zoned "heavy industrial". These lands are located immediately southeast of the junction of 17th Street and Highway 16A.

The fill line would connect the custody transfer meters situated within the Rimbey Pipeline Co. Ltd. ("Rimbey") property to the batch-accumulation site. The pump-out line would connect the batch-accumulation site to IPL's Line 1 meter manifold at its Edmonton terminal. Both connections are north of Highway 16A and would be located on industrially-zoned lands. The lines, once outside of the Rimbey and IPL properties, would follow "pipeline alley" except for a short section (340 m) which would traverse property owned by Shell Canada Products Ltd. ("Shell Products"). IPL is in the process of securing an easement across those lands.

Views of the Board

The Board is satisfied with the proposed location of the NGL batch-accumulation and injection facilities, and with the routing of the required fill and pump-out lines. The Board notes that the lands affected are zoned heavy industrial.

The Board will require IPL to provide evidence, prior to commencement of construction, that the land rights necessary to locate the fill and pump-out lines on the Shell Products property, have been secured.

2.3 Agriculture

In the EIA, IPL submitted that one of the environmental issues related to the construction and operation of the proposed NGL facilities was their impact upon the agricultural capability of the sites.

A reduction in agricultural capability would occur as a result of:

- loss of topsoil;
- soil compaction;
- alteration of local drainage patterns;
- inadequate rock removal;
- introduction of weed species; and
- accidental diesel and gasoline spills during equipment refuelling operations.

To minimize the impact of construction upon agricultural capability, IPL submitted that it would implement the following measures:

- (i) topsoil would be shipped from the fill and pump-out lines' rights-of-way and the batch-accumulation site and stored for replacement after construction;
- (ii) construction would be shut down if wet soil conditions occurred and, in addition, subsoil in travelled areas would be ripped or chisel plowed to a depth of 30 cm and levelled;
- (iii) local drainage features would be retained by restoring ground contours;
- (iv) rocks greater than 10 cm would be removed during construction and clean-up;
- (v) construction machinery would be cleaned before being moved onto the work site to minimize the introduction of weeds; and
- (vi) refuelling of equipment would be done at the roadside with service vehicles being equipped with sorbant materials to clean up spot spills.

IPL submitted that the NGL batch-accumulation vessels and equipment would occupy approximately 4.9 ha in the southeast portion of a 50.8 ha parcel of land. The .

complete, the undisturbed 45.9 ha of the property would again be leased for agricultural production with the present lessee being offered first right of refusal.

In addition, during construction of the fill line and the pumpout line, IPL submitted that the potential existed for disturbance to the farming operations. The lessee of the Shell Products property on which the fill line and pump-out line would be situated was to be informed of the construction schedule. IPL also submitted that, in addition to its measures to minimize the impact of construction upon agricultural capacity, it would restrict movement of pipeline construction equipment to the proposed easement and unauthorized travel off the right-of-way would be prohibited.

Views of the Board

If the measures for the protection of agricultural capability are implemented, the construction and operation of the proposed NGL facilities should create an environmental impact of only a local and temporary nature.

The Board accepts the fact that 4.9 ha must be removed from agricultural production. The Board also notes that IPL proposes to lease the remaining 45.9 ha for agricultural production and that the present lessee would be given first right of refusal.

The Board reminds IPL of its commitment to minimize the impact on agricultural operations caused by the construction of the fill line and pump-out line on the Shell Products property and would recommend that, in the event IPL proceeds with the project, discussions with the lessee commence in order to a minimal disruption to his operations during pipeline construction.

2.4 Accidental Spills and Emissions of NGL

IPL submitted that the potential existed for an accidental release of NGL as a result of a failure at the proposed facilities or due to third-party damage. Due to the characteristics of NGL, the fire and explosion hazard and the alteration of air quality would be the greatest risks to the public.

IPL declared that, before placing the facilities in operation, the vessels would be externally coated and surface drainage would be controlled. This would minimize the potential for external corrosion and therefore the potential for accidental spills and emissions of NGL. In addition, all pipes and vessels would be pressure-tested. Once the facilities become operational, IPL proposes to install warning signs and conduct regular right-of-way inspections to reduce the risk of third-party damage, and to monitor site drainage water for hydrocarbon contamination (indicative of a system leak). Furthermore, IPL would place in operation a network of continuously-monitoring gas-leak detectors which would trigger an alarm should even low concentrations of gas be detected. IPL submitted that it would monitor the development of new gas detection devices and would be prepared to upgrade its present system to ensure that it remains up to date.

IPL has formulated a "Community Emergency Response Manual" which allows prompt and effective response to accidents that may pose a threat to public safety. IPL participates in the Community Awareness and Emergency Program. This program enhances communication and cooperation amongst industry, municipal and provincial organizations and the general public.

Views of the Board

The Board is of the view that the applied-for facilities have been designed to minimize the risks and effects of fire and explosion resulting from the accidental release of NGL. The Board notes with approval IPL's commitment to maintaining communication and cooperation within the industry; with the relevant municipal and provincial agencies; and with the general public, particularly with the residents of Strathcona Park, adjacent to the proposed facilities. The site chosen is in close proximity to emergency equipment and skilled response personnel at other oil and gas facilities.

The Board reminds IPL of the requirement pursuant to section 58 of the *Onshore Pipeline Regulations* that it must file with the Board a post-construction environmental report indicating the environmental issues which were resolved and any which remain unresolved. IPL is directed to include in this report descriptions of the measures it proposes to implement in respect of any unresolved environmental issues.

2.5 Finding Regarding Environmental Matters

With respect to IPL's application to construct NGL batch-accumulation and injection facilities near Edmonton, Alberta, the Board finds that the potentially adverse environmental effects and the social effects directly related to those environmental effects are insignificant or mitigable with known technology.

Chapter 3

Need for the Proposed Facilities

3.1 Open Access

IPL submitted that its proposed batch-accumulation and injection facilities for NGL are needed primarily in order to provide open access to its common-carrier pipeline for the shipment of NGL from Alberta to eastern markets. IPL currently ships NGL on its pipeline for Amoco. The batch-accumulation and injection facilities used for these movements are not open access but are privately-owned and operated by Amoco. IPL surveyed all potential NGL shippers in early 1989 to determine if sufficient interest existed in using the proposed new facilities. IPL concluded that these facilities are needed because the Prospective Shippers have the product to ship and require these facilities to access IPL's common-carrier transmission system.

The Prospective Shippers indicated that the proposed facilities are needed to provide them with open access to a common-carrier pipeline for shipment of NGL eastward. They underlined the fact that there were currently no such facilities available in Alberta and argued that, as a consequence, Amoco is the only shipper who can deliver NGL eastward. The need for open-access rather than private facilities was one reason they cited for deciding not to construct their own batch-accumulation and injection facilities. The Prospective Shippers testified that IPL has the land required to build these facilities as well as the necessary expertise to construct and operate them. Further, because IPL's proposed facilities would be regulated by the Board, they would provide an opportunity for other NGL shippers to ship NGL eastward through open-access facilities.

The Prospective Shippers indicated that for the previous five years, they had been exploring various means of shipping NGL eastward from Alberta, and that all their efforts in this regard had been frustrated. As an example, they cited their attempt to modify equipment at an existing NGL cavern at Fort Saskatchewan to provide for delivery to Edmonton at IPL's Line 1 flow rate. They contended that this project was frustrated when an agreement could not be reached with Amoco, a user of the cavern.

In its submission under the GHW-5-90 proceedings, IPAC indicated that the need for the applied-for facilities had not been demonstrated and could not be without certain additional information. IPAC recommended that the Board include examination of the issue of "need" in the RH-3-90 hearing, a suggestion which the Board adopted. In final argument IPAC stated that, based on the evidence presented at the hearing, it had concluded that the matter of need for open-access facilities had been satisfied.

Amoco argued that the fact that the Prospective Shippers requested the construction of facilities and wanted them to be available on a common-carrier basis was insufficient to demonstrate the need for the applied-for facilities. Amoco asserted that there had been a demonstration of a private interest but not that the proposed facilities would be in the public convenience and necessity. As further discussed in Chapter 4, Amoco argued that in addressing the question of need, the Board should have regard to the existence of alternatives, whether they be other common carriers, or a combination of private and common-carrier facilities.

Views of the Board

Common-carrier pipelines currently exist for eastbound NGL movement. However, the batch-accumulation and injection facilities needed to access their transmission services are not owned by the pipelines and have not been subject to NEB regulation. This has affected the ability of some prospective NGL shippers to move their product eastward. In the Board's view, it would be in the public convenience and necessity for IPL to provide open-access batch-accumulation and injection facilities. This would give aspiring shippers an opportunity to ship their NGL to eastern markets on a common-carrier pipeline system.

3.2 Supply and Demand

IPL argued that in terms of its application under section 58 of the Act, two of the criteria which must be dealt with are: the availability of NGL to the facilities and the existence of markets.

IPL noted that it traditionally relies on its shippers to provide evidence that they will have the supply necessary to justify construction of new facilities. For this application, IPL explained that it conducted an industry survey which resulted in the Prospective Shippers signing a FSA under which a total of 1 750 m³/d of propane plus¹ would be tendered. IPL viewed the FSA as providing verification of the intention of the shippers to transport sufficient volumes of NGL to make the facilities used and useful. According to IPL, the incremental throughput of NGL on the IPL system would be 1 540 m³/d or 88 percent of the contract volume of 1 750 m³/d.

IPL stated that the supply of NGL to be delivered to the applied-for facilities would be obtained from new and existing natural gas production and from liquids recovered from hydrocarbon miscible flood projects. The market outlet for these liquids would be the Consumers Power Company fractionation facility at Marysville, Michigan.

In response to an information request by IPAC, IPL submitted a September 1989 Marengo Consulting Ltd. ("Marengo") report entitled "Analysis of NGL Deliveries to Eastern Canada and U.S. Midwest Markets". In IPL's view, this study supported the need for the project because it showed a generally increasing supply of NGL.

The Prospective Shippers also submitted information provided by Marengo which updated the September 1989 report. They indicated in testimony that the September 1989 study was not relevant because it was prepared on the basis that Amoco would be the only shipper of NGL and that other shippers would not have access to eastern markets via the IPL system.

The updated view presented by Marengo on behalf of the Prospective Shippers was that the volume of propane plus available for transport to eastern markets would increase substantially from the 1990 level of 16 500 m³/d and continue in the range of 18 500 to 19 400 m³/d from 1991 to the year 2000. These volumes include supply available at Kerrobert as well as at Edmonton.

The Prospective Shippers also submitted a study by Purvin & Gertz, Inc. ("Purvin & Gertz"), entitled "Canadian NGL Outlook". This study projected growth in the propane component of the unfractionated NGL mix available to IPL in Alberta, for movement to Eastern Canada, from 2 500 10³m³ (i.e. 6 800

¹ This is a mixture of NGL consisting mainly of propane and butanes with some heavier hydrocarbons.

m³/d) in 1990 to 4 200 10³m³ (i.e. 11 500 m³/d) by 1995. The butane component of the NGL mix available to IPL was projected to grow from 1 400 10³M³ (ie. 3 800 m³/d) in 1990 to 2 600 10³m³ (i.e. 7 100 m³/d) by 1995.

Purvin & Gertz attributed the increase in NGL available to IPL for eastern delivery to a number of factors. These included: increased NGL recovery in Alberta as a result of higher gas sales; a reduction in the volume of propane plus solvent injected into hydrocarbon miscible flood projects in Alberta; and installation of de-ethanizer capacity at Fort Saskatchewan.

Purvin & Gertz forecast growth in demand for propane in Eastern Canada from 5 600 m³/d in 1990 to 7 400 m³/d in 2005; butane demand was projected to grow from 5 300 m³/d to 6 300 m³/d over the same period. Demand for propane in Eastern Canada was seen to be growing in the conventional end-use and auto-propane markets. No growth was expected in the petrochemical sector or in refinery use. Demand for butane in Eastern Canada was projected to increase only slightly from 1990 levels, with increases only in the refinery-use category. However, Purvin & Gertz indicated that several domestic petrochemical projects have been proposed which could consume incremental volumes of NGL.

This study also indicated that the success in developing the Sarnia area as a major centre for propane and butane distribution can be attributed in part to the proximity of large U.S. markets for both propane and butanes. With respect to U.S. markets in immediate proximity to the Sarnia area, the Purvin & Gertz study indicated that propane demand in Michigan, Indiana and Ohio increased from 6 300 10³m³ to 7 100 10³m³ between 1987 and 1989.

The Prospective Shippers stated that the construction of the proposed facilities would have a critical impact on the distribution of NGL since they would provide an opportunity to ensure access of Alberta NGL production to the eastern Canadian marketplace. They were of the view that the updated Marengo information and the Purvin & Gertz study both indicated an increased availability of NGL for eastern delivery during the 1990s and therefore supported the need for the proposed facilities. IPAC viewed the evidence as clearly demonstrating that there will be incremental volumes of NGL available for shipment to eastern markets.

CanStates Energy ("CanStates") was of the view that NGL supply in Alberta will increase because of growing natural gas export sales, the return of NGL used in miscible floods and the loss to Alberta of U.S. northern tier markets for NGL. It also argued that eastern markets for NGL products were growing due to growth in refining and petrochemical demand and expansion of the auto-propane market.

Gulf Canada Resources Limited ("Gulf") argued that the evidence demonstrated that there is a present and growing demand for facilities that will permit the shipment of NGL from the west to eastern markets.

Polysar Hydrocarbons Limited ("Polysar") was of the view that there are ample volumes of NGL mix available in Western Canada for shipment east for further processing. This view was based on the increasing volumes of natural gas sales and the increasing volumes returning from miscible floods.

Petroleum Limited ("PanCanadian") was opposed to the application because it was of the view that IPL had not demonstrated that the requested facilities would be used and useful over the long term.

Amoco asserted that the supply information presented in the September 1989 Marengo report did not demonstrate that there would be incremental supply available to utilize the applied-for facilities. Amoco indicated that, although the Marengo report forecast IPL's total NGL volumes to increase from 12 500 m³/d in 1990 to almost 15 900 m³/d in the year 2000, less than 950 m³/d of the incremental supply was forecast to be available at Edmonton. Amoco pointed out that the NGL volumes available at Edmonton were forecast to decline after the year 2000, and by 2005, would be below the 1990 volumes. Amoco noted that, while the September 1989 Marengo report forecast 7 840 m³/d of NGL available to IPL at Edmonton in 1991, the updated evidence provided by the Prospective Shippers forecast 14 990 m³/d to be available. Amoco argued that this could indicate a migration to the IPL system of a significant portion of the 1 110 to 1 270 m³/d of propane and field-grade butane currently being shipped eastward on the Cochin system¹. (See also Section 5.1 for Amoco's position on the impact on Cochin of approving this application.)

Views of the Board

The Board agrees with those parties who argued that increased production of natural gas will result in a growing supply of NGL. The Board also concurs in the view that the demand for NGL for hydrocarbon miscible floods will decrease from the levels seen in the past. The Board believes that these factors will contribute to the availability of incremental volumes of propane plus for shipment to eastern markets, and that a portion of this incremental supply will be available at Edmonton for shipment on the IPL system via the applied-for facilities.

Moreover, the Board is of the view that the relatively small incremental volumes of NGL which would move east through the applied-for facilities could be readily absorbed in the Canadian and U.S. markets.

3.3 The Facilities Support Agreement and Need

IPL stated that the primary argument in support of the need for the applied-for facilities is that there is a need for open access, common-carrier NGL batch-accumulation and injection facilities. IPL also argued that the substantial financial commitments which the Prospective Shippers have undertaken in the FSA also strongly support the argument that there is a need for the facilities. These commitments indicate that the Prospective Shippers fully intend to use the facilities, and provide an important guarantee that neither other shippers on IPL nor IPL's shareholders would be unduly affected by any underuse of the facilities.

The Prospective Shippers argued that the financial obligations which they have undertaken in the FSA provide the strongest evidence that there is a need for open-access, common-carrier facilities and that the facilities will in fact be used. CanStates and Gulf also argued that the FSA demonstrated that the facilities are needed and would be utilized.

¹

The Cochin system refers to that pipeline which runs from Fort Saskatchewan, Alberta to Sarnia, Ontario. The Canadian portion of the line is certificated by OC-29 and is owned by the parties to the Cochin Pipeline Joint Venture Agreement, that is: Cochin Pipe Lines Ltd., Dow Pipeline Ltd., A.G. Pipelines (Canada) Ltd., Petro-Canada Inc., and Shell Canada Resources Ltd. It is operated by Cochin Pipe Lines Ltd., a wholly-owned subsidiary of Amoco Canada Petroleum Company Limited.

A number of parties, including the Canadian Petroleum Association ("CPA"), IPAC, PanCanadian and Shell Canada Limited ("Shell") argued that, although the FSA may provide supportive evidence of need, it cannot be considered by itself to be demonstrative of need.

Amoco argued that the existence of the FSA was an indication that there is in fact no real need for the applied-for facilities and argued that IPL required the FSA because, in its absence, IPL was not confident that the facilities would actually be used. Amoco noted that IPL agreed that NGL shippers could potentially use other transportation systems. Amoco argued that a viable alternative exists and that the FSA was only necessary to protect IPL's shareholders and other shippers on the IPL system from potential underuse of the facilities. The agreement does not, in Amoco's view, constitute evidence that there is a need for the applied-for facilities.

Views of the Board

The Board is of the view that the financial guarantees in the FSA provide supplementary evidence of the need for the applied-for facilities and strong evidence that, if constructed, they would be utilized.

3.4 Finding Regarding Need

The Board finds that the NGL batch-accumulation and injection facilities applied for by IPL are needed. They are needed primarily to provide open access for shippers of NGL to IPL's common-carrier pipeline system. Further, in view of the forecasts for rising NGL availability in Western Canada and rising NGL demand in the east and in view of the financial obligations undertaken by the Prospective Shippers In the FSA with IPL, the Board is satisfied that the proposed facilities will be adequately utilized.

Chapter 4

Potential Alternatives to the Proposed Facilities

4.1 The Cochin Alternative

In a letter addressed to all Cochin shippers and Cochin interested parties dated 6 September 1990, Amoco described the availability of the Cochin system for the transportation of NGL. Amoco's proposal, referred to herein as the Cochin Alternative, would entail:

- (i) receipt of NGL from feeder pipelines into Amoco's leased capacity in Cochin Ethane Marketing Joint Venture's ("CEMJV")¹ Cavern C-106 at Fort Saskatchewan, Alberta, where batches would be accumulated on a contract basis;
- (ii) dehydration of the NGL batches at the CEMJV dehydrator at Fort Saskatchewan on a contract basis;
- (iii) transmission on a common age basis via the Cochin pipeline from Fort Saskatchewan to Windsor, Ontario;
- (iv) breakout storage and terminalling at Windsor provided by the Windsor Storage Facility Joint Venture ("WSFJV")² on a common-carriage basis or, if unavailable, by Amoco on a contract basis; and
- (v) transmission from Windsor to Marysville, Michigan on a common-carriage basis via the Dome NGL Pipeline Limited, Polysar, and Polysar Hydrocarbons Inc. (in the U.S.) pipelines, all of which are parties to the Marysville Through-Haul Agreement with Cochin Pipe Lines Ltd.

Amoco argued that it would not be in the public interest to construct the applied-for facilities because the Cochin Alternative is already available. It contended that the Cochin pipeline could transport the same volumes, from the same point of origin to the same destination, through existing under-utilized facilities, and at a lower cost. Amoco asserted that the Cochin system had excess capacity of 2 380 m³/d which would exist well into the future and felt that the September 1989 Marengo report filed by IPL supported this view. Amoco's position therefore was that the existence of the Cochin Alternative would make the proposed facilities redundant.

Amoco maintained that the Prospective Shippers' apparent preference for the IPL option was partly based on an expectation that some of the costs of the NGL injection facilities would be rolled in to IPL's general rate base. It argued that if the Cochin Alternative were compared to the IPL proposal on a full incremental cost basis, the Cochin Alternative would be the less expensive option. Thus, in its view, IPL's proposal to roll in some of the costs of the applied-for facilities to IPL's general rate base

¹ The CEMJV owners are: Amoco Canada Petroleum Company Limited, Dow Chemical Canada Inc., A.G. PipeLines (Canada) Ltd., Petro-Canada Inc., and Shell Canada Resources Limited.

² The WSFJV owners are: the Ethane Shippers Joint Venture (same ownership as CEMJV), Amoco Canada Resources Ltd., and Cochin Pipe Lines Ltd.

would create a somewhat artificial preference for these facilities as compared to the Cochin Alternative. Amoco was also of the opinion that a number of points strongly indicated that the differential between the total cost of transporting NGL on Cochin and IPL would likely grow in the future, thereby making the Cochin Alternative more attractive. In particular, it observed that the cost of shipping on IPL has risen approximately 12 percent per year since 1988. Further, Amoco has forecast that this cost will continue to rise between 5 and 8 percent per year until 1996 even without the proposed facilities being built. In addition, Amoco submitted that the cost of shipping on the Cochin system has decreased since 1988 due to additional depreciation on transportation assets and is likely to remain stable.

Amoco allowed, in testimony, that the shipment of NGL on Cochin would reduce that system's throughput capacity by about 5 percent. Modifications to pumping facilities could compensate for such a reduction. However, Amoco indicated that it had not sought the approval of the other Cochin partners for such modifications.

IPL argued that Amoco's position should not be accepted by the Board because Amoco did not, in IPL's view, support its own position.

IPL pointed out that there were only three applications before the Board: a section 58 facilities application; a section 59 toll application; and a subsection 71(l) application in respect of access to the proposed facilities. IPL submitted that there was no application for an order requiring the Prospective Shippers to ship their NGL on the Cochin pipeline. IPL indicated that, in any event, a transmission system (Cochin) is not a reasonable alternative to constructing batch-accumulation and injection facilities in order to provide access to IPL's pipeline.

IPL argued that the Cochin Alternative, as presented by Amoco, constituted no real option for the Prospective Shippers. IPL pointed out that no NGL through-haul tariff had been posted and that certain additional facilities would need to be put in place. The consent of the Cochin partners other than Amoco was necessary but had not yet been sought. This position was shared by CanStates and by Gulf. IPL also noted that contract prices offered by Amoco for use of the Cochin Alternative may not necessarily materialize.

IPL submitted that, as a common carrier, it had a duty to make an application for facilities when requested by prospective shippers to provide the service. It contended that in order to demonstrate need, it did not have to provide evidence that it was impossible to transport NGL other than on its system.

The Prospective Shippers were of the view that Amoco's contentions that the Cochin system was under-utilized and less costly to use had not been demonstrated. They underlined that the Cochin Alternative would not provide an open-access system for the transportation of NGL to the east. The Prospective Shippers indicated that, while the proposed IPL facilities would be easily expandable to handle the additional future volumes they anticipated, the Cochin Alternative would offer limited or no expansion potential. The Prospective Shippers submitted that evidence provided by Amoco indicated that, with or without approval and construction of the proposed NGL facilities by IPL, the Cochin pipeline would operate at or near capacity during the 1990s.

IPAC and IPL shared the Prospective Shippers' view that the Cochin Alternative was unacceptable because it would not be an open-access, common-carrier system. In this regard they underlined that the

batch-accumulation and injection components of the system were private and would only be available on a contractual basis.

Views of the Board

The Cochin Alternative as presented by Amoco may affect existing Cochin pipeline operations in terms of reduced throughput capacity, expenditures for new or modified facilities, and reduced availability of portions of the system for existing shippers. Therefore in the Board's opinion, Amoco's proposal could only be considered a viable alternative with evidence of consent by the other Cochin partners. In this regard, the Board notes that the Cochin operating committee has not publicly taken a position on the possibility of using the Cochin pipeline in the manner suggested by Amoco.

In any event, the Board is of the view that the Cochin Alternative would not achieve the open-access objective endorsed by the Board in Section 3.1. Certain of its components are not owned by the Cochin Pipeline Joint Venture and have not been subject to NEB regulation. In addition, pipeline capacity on Cochin is forecast to be constrained beginning in 1993.

The Board is of the view that IPL acted appropriately in accommodating the Prospective Shippers' request to construct open-access NGL batch-accumulation and injection facilities. The Board is also of the opinion that it is not unreasonable for some shippers on IPL to continue to provide their own facilities for these purposes if they so desire.

4.2 Use of the Amoco Facilities for NGL Injection Into IPL

As the sole NGL shipper to date on IPL, Amoco ships approximately 14 300 m³/d of NGL from Fort Saskatchewan to Sarnia for its own use and for the use of others.

In an attempt to obtain more information in respect of Amoco's privately-owned NGL storage and injection facilities that access IPL's Line 1 in Edmonton, the Board and other interested parties requested Amoco to provide details of these facilities and of the terms and conditions under which such facilities could be made available to others.

Amoco declined to provide the requested information. In its view, it was neither relevant to the facilities proposed by IPL nor to the only alternative before the Board, the Cochin Alternative. Amoco felt strongly that disclosure of information pertaining to its commercial assets or practices would be extremely prejudicial to Amoco and would, in any event, not be relevant to these proceedings.

The Prospective Shippers were of the view that if there was an alternative to IPL's proposed facilities, it was not the Cochin Alternative but, rather, those Amoco facilities which would provide access to the IPL system. In the absence of response by Amoco to information requests by the Board and other interested parties, the Prospective Shippers submitted that the Board should proceed on the basis that there may be a viable alternative, but that Amoco refuses to provide information which would enable the Board and others to assess that alternative.

At the outset of the hearing, on the basis that it felt that it was entirely relevant for the Board and other interested parties to seek information on other potential options to the facilities proposed by IPL

or to the Cochin Alternative, IPAC brought forward a motion requesting the Board to direct Amoco to respond to the information requests referred to above. IPAC was of the view that this was the only manner in which the Board could be assured that the most economic and efficient set of facilities are authorized.

In its response to IPAC's motion, Amoco indicated its intention to withdraw from the proceedings if directed by the Board to produce the requested information. Upon confirmation by Amoco that Cavern C-106 in Fort Saskatchewan, of which Amoco presently leases about 40 000 m³, is presently in use for NGL service and that the Cavern has a connection to IPL as well as to Cochin, IPAC agreed to withdraw its motion. Further, Amoco testified that Cavern C-106 and its equipment could not, on their own, meet IPL's Line I pumping rates. NGL deliveries which are being made to IPL from Cavern C-106 must first be routed through Amoco's other batching and injection facilities.

The Board accepted IPAC's withdrawal of its motion and continued the proceedings on the basis that only the proposed facilities and the Cochin Alternative would be examined at the hearing.

Subsequently, IPAC submitted in argument that the NGL supply/demand reports that were filed during the course of the hearing clearly demonstrated that there will be incremental volumes of NGL available for sale to eastern markets during the time periods covered by the reports and possibly even beyond these time periods. IPAC was of the view that this evidence supported the conclusion that the need for additional open-access NGL storage facilities had been demonstrated. Notwithstanding its conclusion on the issue of need, IPAC considered that this determination did not of the question as to how best to satisfy the identified need.

IPAC was of the opinion that a third option, the use of Amoco's NGL storage and injection facilities into IPL, would likely represent the best solution to respond to the established need for open-access NGL batch-accumulation and injection facilities. IPAC suggested that an obvious way to give effect to this option would be for the Board to assume jurisdiction over the required Amoco facilities and ensure that they are made available on an open-access, common-carrier basis. To determine which are the required facilities, IPAC urged the Board to convene an inquiry forthwith to examine all aspects of NGL storage facilities presently available. IPAC drew a parallel between the present circumstances and those canvassed during the Board's hearing held pursuant to Order MH-5-85 to examine certain terminal storage and related facilities in Windsor, Ontario.

Views of the Board

The Board has carefully considered IPAC's request that the Board conduct an inquiry to determine the appropriate facilities that are required in order to accumulate and inject NGL into IPL's Line 1 and IPAC's request that the Board exercise its jurisdiction over those facilities once it has made that determination.

In Hearing Order RH-3-90, the scope of these proceedings included the appropriate toll design for the proposed facilities, as well as a request for unapportioned access. In addition, in the amendment to that Order, the Board indicated that it was prepared to entertain evidence on the need for the applied-for facilities. Therefore, this hearing has had, from the beginning, a specific predetermined scope.

When it set down its Directions on Procedure for RH-3-90, the Board did not purport to conduct an inquiry into all of the batch-accumulation and injection facilities that are currently available to effect the delivery of NGL to eastern markets, nor did parties, prior to the oral phase of the hearing, seek inclusion of such an inquiry in this proceeding.

The Board agrees with IPAC that there are similarities between certain issues in these proceedings and those in the MH-5-85 inquiry of 1985. Nevertheless, the Board believes that, at this time, an inquiry into all the batch-accumulation and injection facilities that are available to effect delivery of NGL to eastern markets is not required. Further, an inquiry of the type requested by IPAC could result in delays in the provision of open-access NGL batch-accumulation and injection facilities into the IPL system.

Decision

The Board denies IPAC's request to convene an inquiry forthwith in order to examine all aspects of NGL batch-accumulation and injection facilities presently available for shipment on either Cochin or IPL.

4.3 Finding Regarding Potential Alternatives

The Board finds that, at this time, there are no alternatives to the facilities applied for by IPL that would provide the open-access, common-carrier service required.

Chapter 5

Other Public Interest Considerations

5.1 The Impact on Cochin

Amoco expressed concern that, if the IPL project were to proceed and an incremental demand for facilities did not materialize, the existing IPL and Cochin facilities could be idled. Amoco submitted that as a shipper on these systems, it could suffer if these facilities were under-utilized. Amoco also contended that there could be a migration of volumes from the Cochin system to the IPL system if IPL's application were approved.

Amoco expressed a desire to see the Cochin system utilized as fully as possible. Amoco believed that this would be good not only for Amoco as an owner, but that it would also be in the common good.

Amoco pointed out that, for the most part, ethane is currently being shipped on the Cochin as a way to minimize financial losses. Amoco indicated that, although the forecasts it filed showed that Cochin would essentially be fully utilized whether the applied-for facilities are constructed or not, it would be to the economic advantage of the Cochin partners currently shipping their own ethane on Cochin to forego such movements in favour of shipping NGL on an arm's-length basis.

IPL argued that, rather than being under-utilized, the Cochin pipeline would be indeed full. IPL questioned the advantage to the Cochin partners/shippers of replacing ethane shipments with NGL and doubted their willingness to abandon ethane movements at current oil prices.

IPL stated that to force the Prospective Shippers onto Cochin because it was to the financial benefit of the Cochin partners was not a matter of public interest or of economic feasibility. IPL argued that it would be contrary to the criteria of the Act.

Views of the Board

Since the Cochin pipeline is forecast to operate at a high load factor throughout the current decade whether the proposed IPL facilities are constructed or not, and since all shipments on Cochin are subject to the same toll, the Board is of the view that the Cochin pipeline revenue stream would not suffer should the IPL facilities be approved and built.

The Board recognizes that, depending on the oil price environment, individual Cochin partners/shippers may find it more profitable to ship NGL for third parties than to ship their own ethane. Whether such a price scenario would arise or be maintained for a significant period is uncertain. In any event, approval of the proposed IPL facilities would not preclude NGL movements on Cochin. The Board is of the view that the potential impact on the Cochin partners in this respect will not detract from the public interest of providing open access for NGL movements on IPL.

5.2 Upstream and Downstream Market Effects

The Prospective Shippers and CanStates noted that there is a surplus supply of butane and propane in Western Canada and that producers have a need to access new markets to sell these products. They therefore argued that there is a need for the proposed IPL facilities in order to enable NGL shippers other than Amoco to move NGL to eastern markets.

The Prospective Shippers argued that the construction of the applied-for facilities would result in market benefits to both producers and consumers. From the producer perspective, there would be increased marketing opportunities for NGL which should result in improved netbacks on NGL sales. At the same time, the increase in the number of sellers of NGL in Eastern Canadian markets should increase competition, thereby benefitting consumers of products derived from NGL. The Alberta Petroleum Marketing Commission ("APMC") and Gulf agreed that the facilities would promote competition in the marketplace and hence would be of benefit to producers and consumers alike.

Amoco was of the view that it is economically preferable, from the producer's viewpoint, to fractionate NGL in Western Canada and to ship specification products east via the Cochin pipeline system. Amoco argued that the higher costs of fractionation at the Marysville plant would dissipate any potential for increased netbacks to producers.

Views of the Board

In the Board's view, the construction of the applied-for facilities will clearly provide additional marketing opportunities for NGL producers. In this regard, the Board notes that such opportunities may also be available for shippers, other than the Prospective Shippers who seek to use the proposed batch-accumulation and injection facilities on a spot basis. Further, there is the potential for the proposed facilities to be expanded at relatively low incremental cost to accommodate other shippers in the future.

The Board notes that, to date, Amoco has been the only shipper of NGL on IPL. The Board believes that the entry of several new NGL shippers into the Eastern Canadian market should increase competition in due market, thereby providing consumers of NGL products with the benefits of increased purchasing options.

5.3 Finding Regarding Other Public Interest Considerations

The Board finds that the approval and construction of the proposed facilities will yield benefits for producers and consumers of NGL. The Board also finds that approval of these facilities will not detract from the public interest, since no negative impact on other parties was demonstrated.

Chapter 6

Design, Cost and Operational Matters

6.1 Facilities Design

The proposed facilities consist of: a fill line, nine buried storage vessels, a relief vessel, a pump-out line, booster and miscellaneous pumps, two electrical buildings to house control and communication equipment, a control building to house switchgear and electrical equipment, an NGL sampling building, measuring and metering equipment, security and safety equipment, valves, headers and associated appurtenances.

As shown in Appendix III, NGL would arrive at the Rimbey terminal via four feeder pipelines¹ at a combined maximum flow of 1 470 m³ per hour. The NGL would then pass through IPL's proposed custody transfer equipment where IPL would conduct sampling, measuring and metering operations. A discharge header would funnel the NGL into a 457 mm diameter 2 100 m long reversible fill line designed to accommodate the combined maximum flow of the feeder pipelines. At the storage site, leak detection meters installed in parallel would monitor NGL volumes flowing through the storage facilities' inlet header. The nine 2.032 m diameter 350 m long steel pipe-type storage vessels would have a functional storage capacity of 9 200 m³ of NGL (corresponding to 93 percent of the gross storage capacity). For injection into Line 1, the NGL would be pumped out as a batch simultaneously from all nine storage vessels through a booster pump suction header, booster pumps (P1, P2 and P3) and a booster pump discharge header which would funnel the NGL into a 508 mm diameter 1 300 m pump-out line designed to handle up to 1 800 m³ of NGL per hour. A leak detection meter would monitor NGL volumes going into the pump-out line for delivery to the existing Line 1 meter manifold.

The proposed design would permit the transfer of off-specification NGL from the storage vessels back to the Rimbey terminal via a transfer pump (P4) and the proposed reversible fill line represented by a dotted line in Appendix III, and on to Fort Saskatchewan via an existing pipeline operated by Fort Saskatchewan Pipe Line Company.

The proposed design provides for the diversion of NGL from the fill line or from any storage vessel into a 550 m³ relief storage vessel. The relief storage vessel would be connected to the storage facilities inlet header by way of a separate pump (P5) which would allow for the transfer of NGL from the relief storage vessel back into the storage facilities.

IPL indicated that the proposed design and land availability at the designated site could readily accommodate future expansion of the storage component of the facilities by the installation of additional storage vessels.

¹ The Co-ed, Gibson, Peace, and Rimbey pipelines.

At the time the section 58 application was filed by IPL, the facilities' design was still at a preliminary stage. Consequently, the detailed design data and supplemental specification sheets requested by the Board could not be provided by IPL. However, IPL undertook to submit to the Board, once the detailed design is complete and before the commencement of construction, the outstanding information.

None of the parties challenged the adequacy of the proposed basic design. In its written submission dated 13 September 1990, IPAC expressed its general support for measures designed to ensure that cost-effective transportation facilities, sized for the need indicated by reasonable supply and demand forecasts, are available for NGL shippers. IPAC also felt that a determination had to be made as to whether the specific hardware proposed by IPL provides the optimal facilities' design for such a project IPAC also stated that it would rely on the Board's technical expertise to ensure that the facilities actually constructed by IPL constitute the optimum configuration in the circumstances.

Views of the Board

Although certain design details of the proposed facilities had not been finalized at the time of the Board's review, the Board is of the opinion that the basic design information contained in the application and provided by IPL in response to various information requests is sufficient to assess the general adequacy of the proposed design.

The Board is satisfied with IPL's undertaking to submit the outstanding detailed design information requested by the Board once the detailed design is complete and, in any event, prior to the commencement of construction.

6.2 Facilities Cost

The total capital cost of the proposed storage and injection facilities was estimated by IPL in its application to be \$18,044,000. A breakdown of this estimate into the main cost category elements is provided in Table 6-1.

Table 6.1
Estimated Capital Costs of the Proposed
Batch-Accumulation and Injection Facilities
(\$000)

Category	Estimated Cost ¹
Underground Storage Vessels	7,747
Custody Transfer and Leak Detection Meters	1,720
Fill Line	806
Pump-out Line	797
Pumps	575
Valves ²	--
Buildings	109
Other Facilities ³	3,821
AFUDC	1,188
Engineering, General and Administration	1,281
Total Estimated Capital Cost	<u>18,044</u>

1 Includes materials, installation, land and land rights.

2 The cost of valves is included in the cost of the fill line, pump-out line, pumps and custody transfer and leak detection meters.

3 Includes site work, flare system, level gauge system, inlet piping system, storage pump-out piping, booster pump piping, electrical facilities instrumentation and control, cathodic and fire protection, inspection costs and final clean-up costs.

IPL indicated that in its examination of the most cost-effective and operationally-feasible way of providing NGL storage facilities, it had considered a study conducted by Lakehead for the provision of breakout storage at Superior, Wisconsin. This study evaluated three conceptual design alternatives: above-ground spheres, above-ground cylindrical pressure vessels, and below-ground buried pipes. It found that underground pipe storage was the preferred alternative for economic, operational, security, safety and environmental reasons.

IPL's cost estimates of alternative design concepts indicate that the proposed underground pipes would offer the most economical option at \$7.7 million. Based on the same volumes and the same design pressure, the cost of above ground storage spheres would be in excess of \$12 million, not including additional costs for refrigeration and vapour generation equipment. The construction of above-ground horizontal cylindrical pressure vessels would cost an estimated \$10.5 million. In this case, the higher cost would primarily be due to the extensive manifold piping and the civil work required.

None of the parties challenged the reasonableness of the project's cost estimates.

Views of the Board

The Board is of the view that the basic design concept of the facilities constitutes the most cost-effective alternative for NGL batch-accumulation and injection facilities of this size. The Board also believes that the estimated cost is reasonable and in line with the nature of these facilities. IPL is reminded that the cost of these facilities, including any overruns, will be subject to normal review pursuant to the Board's responsibilities under Part IV of the Act before being authorized for inclusion in IPL's rate base. During construction, IPL will be required to file monthly construction cost and progress reports.

6.3 Batching Operations

Line 1 operating conditions require that NGL be delivered in batch sizes of not less than 8 000 m³ and be injected at a line rate of 1 500 m³ per hour. The maximum practical batch size on Line 1 is 70 000 m³.

IPL indicated its intention to ship NGL batches from the proposed facilities adjacent to NGL batches currently being shipped by Amoco. This would be IPL's preferred mode of operation since this method would eliminate the need for additional buffer material. Under the proposed scheme, the contaminated trailing buffers arriving at Superior and at Marysville would be the responsibility of the Prospective Shippers. In the event that IPL would have to move an NGL batch from the proposed facilities independently, 2 000 m³ of new buffer would be required at each end of the batch on Line 1 and 2 500 m³ on Line 5. According to CanStates, these extra buffer volumes would be disposed of by the Prospective Shippers to Sarnia-area refineries.

Amoco indicated that it normally ships a pre-fractionated mix with a composition different from that of raw NGL. Amoco expressed concerns regarding the shipment of its NGL batches back-to-back with the proposed raw NGL batches, and presumed that an agreement between it and IPL would be required before the proposed batching mode is implemented. Amoco contended that it had neither been approached regarding such a scheme nor, consequently, had it agreed to one. Amoco also stated that back-to-back batch shipments would make the slip-stream injection of NGL at Kerrobert, Saskatchewan and Cromer, Manitoba by Amoco more difficult, and it stated that product balancing would be required for the interface between the two batches.

Amoco testified that in many years of business with IPL, it has generally had a good relationship regarding operational matters. Amoco has found that IPL generally uses whatever techniques are necessary to satisfy its clients.

IPL's corporate position in respect of batch scheduling and buffering is that, while these are matters within its exclusive purview, it endeavours to negotiate these matters and attempts to satisfy all parties. If shipping its batches back-to-back with the new NGL stream is objectionable to Amoco, IPL stated that it would attempt to work out a solution through negotiation. It considered this to be an operational detail to be worked out in due course after Board approval of the project.

Views of the Board

The Board is of the view that the proposed batching mode is technically feasible. The Board agrees with IPL that batch scheduling, buffering and interface contamination are operational issues which are more appropriately discussed and resolved between the carrier and the shippers. Given past experience, the Board is confident that the parties can resolve these issues among themselves.

6.4 Safety Evaluation

An assessment of the proposed NGL facilities was commissioned by IPL, to identify potential hazards and assess measures for their mitigation. The analysis, which forms part of the record, defines hazard scenarios, analyzes hazard consequences resulting from NGL releases, and assesses potential hazard mitigation measures.

IPL stated in its Hazard Mitigation Assessment report that the implementation of hazard mitigation measures may be evaluated both in terms of preventing the hazard occurrence and mitigating the consequences should the hazard in fact occur. Hazard occurrence prevention and consequences mitigation are achieved through the identification of potential hazards, the classification of these hazards according to the significance of their consequences, and the implementation of hazard prevention measures through design considerations or the inclusion of safety protection systems to minimize the possibility of hazard occurrence.

None of the parties challenged IPL's hazard assessment document nor the proposed mitigation measures.

Views of the Board

Although the engineering design used to carry out the hazard mitigation assessment is in a preliminary phase, the Board is of the view that the principal hazard scenarios and the related consequences have been adequately identified and addressed. The Board is also of the view that the proposed underground design is inherently safe, because it would virtually eliminate the potential for boiling-liquid, expanding-vapour explosions and fires which have historically proven to be significant hazards for above-ground storage facilities.

The Board believes that the proposed inclusion of safety protection systems such as the overpressure relief system and other proposed preventative measures, minimizes the possibility of hazard occurrence. Further, opportunities to introduce additional preventative measures may arise during the detailed engineering design phase of the project. The Board will require IPL to submit for approval a description of any such additional or modified preventative measures it proposes to employ.

6.5 Finding Regarding Design

The Board finds the general design of the proposed facilities, as well as the proposed hazard prevention and mitigation measures, to be satisfactory.

Chapter 7

Decision Regarding Public Convenience and Necessity

The Board finds the NGL batch-accumulation and injection facilities applied for by IPL to be required by the present and future public convenience and necessity. They are needed primarily to provide open access for NGL to IPL's common-carrier pipeline system. The Board is satisfied that the facilities can be constructed and operated safely. In addition, the Board finds that the potentially adverse environmental effects and social effects directly related to the environmental effects associated with the upstream production, gathering and processing; and the end-use of the NGL going through the proposed batch-accumulation and injection facilities are insignificant or mitigable with known technology. Further, in light of forecasts of increasing NGL supply in Western Canada and of NGL demand growth in the east, and as a result of the financial guarantees in the FSA between IPL and the Prospective Shippers, the Board is satisfied that the proposed facilities will be adequately utilized.

Order XO-1-91, included as Appendix V of these Reasons, authorizes IPL to construct the applied-for facilities. This Order is subject to the conditions contained therein.

Chapter 8

Facilities Support Agreement

8.1 Requirement for the Facilities Support Agreement

IPL required, as a prerequisite for preparing its design and cost estimates for the proposed NGL facilities and filing the application with the Board, that the proponents of the NGL project sign an FSA with IPL. The FSA guarantees IPL the recovery of certain costs from the Prospective Shippers whether the project proceeds or not.

The recovery of these costs, in the event that the project proceeds, is structured to be consistent with IPL's proposed toll design for the facilities (details of which are provided in Chapter 10). In this regard the FSA ensures IPL's recovery of the surchargeable revenue requirement associated with the NGL facilities, as well as the transportation toll on a minimum NGL volume of 1 240 m³/d. Each Prospective Shipper's revenue commitment is based on its proportion of the contract volumes listed in Appendix I to the FSA, which total 1 750 m³/d. Each year, any shortfall in the Prospective Shippers' toll payments from these revenue commitments would be made up by the Prospective Shippers through deficiency payments. In calculating the amount of each Prospective Shipper's deficiency payment, IPL would give credit for the applicable revenues received from shippers not signatory to the FSA but who use the proposed NGL facilities as well as the amount by which other Prospective Shippers' toll payments exceed their revenue commitment. The FSA states that the surchargeable revenue requirement for which the Prospective Shippers would be responsible pursuant to the FSA would not increase as a result of any expansion of the proposed NGL facilities. IPL submitted that this provision would not protect Prospective Shippers from toll increases associated with expansion of the facilities, but that it would simply cap their revenue commitment in respect of the surchargeable costs.

The FSA provides Prospective Shippers with the opportunity to withdraw from the Agreement within a specified time frame, with the remaining shippers' shares being adjusted accordingly. The Agreement also stipulates conditions for a quorum notice of withdrawal whereupon all parties would be released from their obligations under the Agreement, with the Prospective Shippers paying IPL the reimbursable costs defined therein. During the proceedings, the Prospective Shippers stated that it would be unreasonable to expect them to undertake the obligations of the FSA unless they received unapportioned access (see Chapter 9). They also stated that they would withdraw from the FSA if the NGL facilities were tolled so as to require that all of the project's costs be borne by the users. As well, the Prospective Shippers indicated they would withdraw from the Agreement if the Board was of the view that the FSA was not something it saw as needed but, in any event, ordered IPL to build the proposed facilities.

IPL stated that it would not proceed with the NGL project without the FSA because the undertaking was too risky without the guarantees which it provided. IPL asserted that its concerns were in respect of the unique facilities which could not be used for other hydrocarbons. This characteristic would contribute to the risk of the proposed facilities being under-utilized. IPL stated that the FSA was structured to protect its shareholders from under-utilization of the facilities, as well as to protect IPL's existing shippers from the undue burden which could result through IPL's proposed toll design. Under IPL's proposed toll design, which is described in section 10.1 of these Reasons for Decision, IPL

would add a portion of the revenue requirement associated with the project to the revenue requirement for IPL's existing services.

IPL indicated that, in the event the proposed NGL facilities were expanded in the future, it would examine circumstances at that time to decide whether it would require FSAs and, if it did, what type would be required to support the expansion.

CPA and IPAC opposed IPL's requirement for an FSA. IPAC argued that there would be inequity in parties' bargaining powers if FSAs were required of them and that IPL's requirement for FSAs results in contract carriage, thereby acting as a barrier to access. IPAC submitted that this distorts IPL's common-carrier status.

Shell expressed a concern about the level of exposure which other shippers would face if the proposed facilities were under-utilized. Shell was of the view that the Board should condition any approval of the NGL facilities on the Prospective Shippers not withdrawing from the FSA and recommended that the Board make the execution of the FSA a requirement for use of the facilities.

APMC was not opposed to the FSA but suggested that, to the extent it amounted to a firm storage contract, it could contribute to the appropriateness of stand-alone tolls.

Much debate occurred during the hearing regarding the role of the FSA in demonstrating the need for the facilities. This aspect of the FSA is discussed in Section 3.3.

Views of the Board

The Board recognizes that the intent of the FSA is to protect both IPL's shareholders and other shippers on the IPL system in the event of under-utilization of the applied-for facilities. The Board notes that the applied-for facilities are designed to serve only one commodity group¹ and that IPL does not have experience with operating NGL batch-accumulation and injection facilities. The Board also notes that the facilities are, at least initially, intended for the use of a limited number of shippers. The Board is of the view that the risk of under-utilization of these facilities may be somewhat greater than would be the case for facilities which could serve several commodity groups or which were intended for the use of all shippers on the IPL system. In light of these considerations, the Board is of the view that it is appropriate, in the circumstances of this case, that IPL require an FSA. However, the Board will not impose a requirement for an FSA for the construction of these facilities.

8.2 Acceptability of the Content of the Facilities Support Agreement

As noted in Section 8.1, the FSA was designed to be compatible with IPL's proposed toll design which included a partial roll in of costs to the general revenue requirement and a surcharge. Accordingly, IPL was of the view that a toll design which would not separately identify surchargeable costs would frustrate the FSA. IPL submitted that, if such a toll design were to be approved, an

¹ In RHW-1-89 the Board approved five commodity groups for purposes of IPL's toll design: heavy crude, medium crude, light crude, gasolines and condensates, and NGL.

amendment to the FSA would be necessary which would require the agreement of IPL and all the Prospective Shippers.

APMC was concerned that the structure of the FSA could result in unjustly discriminatory tolls. For example, APMC submitted that the requirement in the FSA that the Prospective Shippers pay the transportation toll on a minimum NGL volume, whether shipped or not, could result in Prospective Shippers paying a transmission toll higher than other NGL shippers. APMC recommended that the FSA should require that the full cost of providing the NGL storage service be paid for by the users.

Views of the Board

As noted in Section 9.1, the Board is of the view that the FSA, as filed by IPL as part of its application, would impose sufficient obligations on the Prospective Shippers to justify their receiving unapportioned access to the proposed facilities. The Board, however, recognizes that changes to the FSA will be necessary as a result of the toll design approved by the Board in Section 10.1¹ (in view of the nature of the approved toll design, such changes to the FSA should alleviate APMC's concerns regarding the Agreement's structure). Given its reliance on the obligations imposed by the FSA in reaching its decision regarding unapportioned access, the Board believes that any changes to the FSA must result in a level of risk being borne by the Prospective Shippers comparable to the level imposed by the FSA examined during the hearing. In this regard, the Board believes that any revised FSA agreed to by IPL and the Prospective Shippers should be filed with the Board for its review.

Decision

Any changes to the FSA agreed to by IPL and the Prospective Shippers must be filed with the Board for its review so that it may determine whether the FSA, as amended, would continue to provide justification for the Prospective Shippers receiving unapportioned access. Any such changes must be filed with the Board at least sixty days prior to the proposed in-service date for the facilities.

¹ In section 10.1, the Board approved a toll design other than that proposed by IPL.

Chapter 9

Access to the Proposed Facilities

9.1 Access for the Prospective Shippers

Under normal circumstances, where nominations to IPL exceed the pipeline's transmission capacity, IPL uses an apportionment procedure which treats each nominating shipper equally, that is, it apportions each shipper's volume on the same basis.

As noted in Section 8.1, IPL required the Prospective Shippers to sign an FSA before IPL would pursue the NGL project. As a result, the Prospective Shippers requested that, pursuant to subsections 58(3) and 71(1) of the Act, the Board include in any order regarding the proposed facilities, a condition that the Prospective Shippers' access to the facilities, up to the amount of their contract volumes stipulated in the FSA, not be subject to apportionment as a result of nominations by shippers not party to the FSA.

In support of their application for unapportioned access, the Prospective Shippers referred to their financial and operational commitments pursuant to and as a result of the FSA and noted that, while IPL currently provides NGL transportation service to other shippers, the proposed facilities had been designed on the basis of only the Prospective Shippers' contract volumes. They also pointed out that all potential shippers had been given the opportunity to participate in the project and that the facilities would be readily expandable.

The Prospective Shippers indicated that they endorsed common-carrier access, and argued that it is the non-discriminatory nature of such access which justifies their receiving unapportioned access to the proposed facilities. In this regard, the Prospective Shippers argued that it would be discriminatory of IPL to provide access to the proposed facilities to all shippers on an equal basis while requiring only the Prospective Shippers to execute an FSA. The Prospective Shippers stated that they would not be applying for unapportioned access if all parties wishing to use the proposed facilities were required to sign an FSA. During cross-examination, the Prospective Shippers stated that another of their concerns was the possibility of Amoco "swamping" the facilities. Nonetheless, the Prospective Shippers' position was that, absent IPL's requirement that they execute an FSA, they would not be requesting unapportioned access.

IPL indicated that, while it was neutral on the Prospective Shippers' application for unapportioned access, it could understand the Prospective Shippers' motivation and was of the view that, in the circumstances of application, unapportioned access would not be unreasonable. APMC did not object to the Prospective Shippers' request for unapportioned access but noted that, if it were granted, the facilities would be effectively operating on a contract-carriage basis.

Polysar supported the Prospective Shippers' application for unapportioned access. CanStates and Gulf, two of the Prospective Shippers, also argued that in support of unapportioned access. CanStates argued that IPL's status as a common carrier would be in jeopardy if the Prospective Shippers were required to be parties to the FSA and yet received the same access to the proposed facilities as shippers not party to the FSA. CanStates expressed concern over the possibility that the Prospective Shippers' long-term commitments could be disrupted by Amoco.

IPAC, Amoco, Petro-Canada Inc. ("Petro-Canada"), and Shell argued that unapportioned access would be inconsistent with IPL's open-access, common-carrier operations. IPAC was also of the view that it would be inappropriate to regulate NGL storage differently from the other components of IPL's operations. PanCanadian submitted that special rights should not be conferred in respect of a regulated pipeline, and that to grant the Prospective Shippers unapportioned access would be both unjustly discriminatory and would undermine IPL's common-carrier status. CPA argued firstly that there should be no FSA and secondly that, in the absence of an FSA, the granting of unapportioned access to the Prospective Shippers would be inconsistent with common carriage.

Petro-Canada reasoned that the Prospective Shippers' fear of "swamping" was not persuasive because Amoco could easily undertake the same commitments as the Prospective Shippers if it wished to use the proposed facilities. Petro-Canada was, therefore, of the view that the only legitimate reason for the Prospective Shippers' application was the financial obligations imposed by the FSA. However, Petro-Canada argued that the FSA does not impose significant hardship on the Prospective Shippers and that, therefore, there are no substantial and compelling reasons for according them unapportioned access.

Shell allowed that unapportioned access is appropriate in circumstances, but submitted that unapportioned access is not justified by the mere existence of an FSA. Shell questioned whether the Prospective Shippers had demonstrated that the obligations imposed by the FSA in this case would be onerous. It also argued that the Prospective Shippers would incur no financial obligation to IPL in the event of apportionment because, pursuant to the FSA, there would be no shortfall in revenues. Shell submitted that IPL's and the Prospective Shippers' primary motivation for the facilities application was a need for open-access, common-carrier facilities but that, ironically, unapportioned access would result in closed-access facilities.

Views of the Board

The Board has considered the issue raised by parties regarding the compatibility of unapportioned access with the operation of a common-carrier pipeline. In this regard the Board notes that, while some parties understood that the term "common carrier" entailed certain obligations regarding the provision of access, such a term is not defined in the Act. A section of the Act which most closely relates to the duties of a common-carrier pipeline is subsection 71(1).¹ The applicability of this provision in assisting the Board in determining whether unapportioned access in this instance is compatible with IPL's common-carrier operation is, however, arguable. Subsection 71(1) addresses the duty of a company operating a pipeline for the transmission of oil, while the proposed facilities are for the batch-accumulation and injection of a hydrocarbon (NGL) defined to be a gas under section 2 of the Act.

During the proceedings, when the Board brought this apparent anomaly (i.e. IPL operating primarily as an oil pipeline while also transporting gases) to the attention of parties, they were not prepared to deal in a substantive manner with the implications, if

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This Subsection reads as follows:

"Subject to such exemptions, conditions or regulations as the Board may prescribe, a company operating a pipeline for the transmission of oil shall, according to its powers, without delay and with due care and diligence, receive, transport and deliver all oil offered for transmission by means of its pipeline."

any, regarding unapportioned access and IPL's operation as a common carrier. For this reason, the Board turned to its own definition of a common carrier which is included in its Information Bulletin No. 10 entitled "Pipeline Tolls and Tariffs: A Compendium of Terms".

"Common Carrier: One who provides transportation for remuneration without discrimination among customers. Service must normally be provided on demand when capacity is available. "

Based on this definition, the Board is of the view that, so long as a pipeline gives all parties the same opportunity, at the same time, to participate in a project or avail themselves of a particular service, then that pipeline's common-carrier is maintained.¹ In this regard, the Board notes IPL's efforts to contact all existing or potential NGL shippers on its system.

Since IPL will size and operate the proposed storage vessels to meet the Prospective Shippers' contract volumes, any nominations from other shippers could, in the absence of unapportioned access, reduce IPL's ability to receive the Prospective Shippers' volumes. Accordingly, the Board understands the Prospective Shippers' desire to be guaranteed that their ability to ship the full amount of their contract volumes each period not be jeopardized by other shippers' nominations to the facilities.

The Board acknowledges the argument that revenues received by IPL from other shippers would reduce the financial obligations of the Prospective Shippers pursuant to the FSA. However, the Board does not believe that the possibility that the Prospective Shippers' financial obligation under the FSA might be reduced by other shippers' NGL volumes would diminish the Prospective Shippers' desire to make adequate supply and marketing arrangements in order to maximize their utilization of the proposed facilities. In this regard, the Board is of the view that the FSA imposes, through its "ship or pay" provisions, obligations and risks which are greater than those faced by parties not signatory to the FSA. Given the circumstances of this case, most importantly the Prospective Shippers having executed with IPL an FSA which the Board believes is sufficiently onerous, the Board views unapportioned access to the proposed NGL facilities by the Prospective Shippers as being not unjustly discriminatory.

Decision

The Board approves the Prospective Shippers' application that their nominations to the proposed facilities, up to their contract volume specified in the FSA, not be subject to apportionment as a result of nominations by shippers not party to the FSA.

¹ As a further consideration with respect to the consistency of what is proposed here with IPL's operations as a common carrier, the Board notes that the apportionment procedures in IPL's current tariff provide for priority to be accorded to oil for certain destinations.

The Board's approval of unapportioned access to the proposed NGL facilities is conditional upon parties who request unapportioned access being signatories to an FSA with IPL which is acceptable to the Board. The Board requires that IPL include this condition in its tariff governing the transportation of NGL, and that IPL submit this tariff for Board approval no later than sixty days prior to the proposed in-service date for the NGL facilities.

9.2 Access for Others

Under the unapportioned access mechanism requested by the Prospective Shippers and approved by the Board, shippers not signatory to the FSA would be able to use the proposed facilities only to the extent that the shippers who are signatories do not nominate the full amount of their contract volumes. This means that the non-signatories would only receive access on an interruptible basis. This situation would continue until the facilities were expanded.

During the hearing, the Prospective Shippers stated that, if a new shipper was awaiting expansion of the proposed facilities and the expansion took longer than the anticipated nine months, the Prospective Shippers would be willing to "move over" and accommodate that shipper on the proposed facilities provided it undertook the same commitments as the Prospective Shippers. The Prospective Shippers also proposed that an existing shipper could increase its capacity on the same basis. The Prospective Shippers submitted that the nine-month waiting period would enable new or existing shippers to make the necessary supply and marketing arrangements. However, they indicated that if the Board viewed the nine-month wait unfavourably, they would be willing to "move over" immediately, conditional upon the party requesting space signing an FSA.

PetroCanada opposed the Prospective Shippers' recommendation for access by others to the proposed facilities, submitting that it would result in discrimination. In particular, Petro-Canada was of the view that the nine-month wait suggested by the Prospective Shippers would be prejudicial and should be denied by the Board. Petro-Canada recommended that a new shipper should receive immediate access to and apportionment on the proposed facilities upon signing an FSA. While arguing that the Board should deny the Prospective Shippers' application for unapportioned access, PetroCanada recommended that, if such access is approved, the Board require clear rules regarding the access of new shippers to the proposed facilities, and that the Board establish rules for spot or limited shipments of NGL.

Views of the Board

Given the circumstances which resulted in the proposed NGL project, and the fact that the proposed facilities can be readily expanded, the Board is of the view that it would be unfair to require that the Prospective Shippers adjust their contract volumes to accommodate other parties who may subsequently wish to ship NGL.

The Board believes that it would be appropriate for new parties wishing to ship NGL, or Prospective Shippers who wish to increase their contract volumes, to wait until an expansion of the facilities is complete, unless the Prospective Shippers, of their own volition, are meanwhile prepared to accommodate other parties on the proposed facilities. In this latter case, any changes to the FSA agreed to by IPL, the Prospective Shippers and, if applicable, any new shipper would have to be filed with the Board for

its review so that it may determine whether the FSA, as amended, would treat all shippers in a comparable manner.

Consistent with its view in Section 9.1, the Board believes that, for shippers to be eligible for unapportioned access to the expanded facilities, they should be parties to an FSA which imposes obligations on them which, in the Board's view, justify such access. Accordingly, any FSA which may be developed in respect of an expansion, and which is intended to warrant unapportioned access, will have to be filed with the Board for its review. Furthermore, with respect to its view regarding the role of the FSA in the matters of unapportioned access (Section 9.1) and toll design (Section 10.2), the Board will have to be satisfied, pursuant to section 67 of the Act, that there would be no unjust discrimination between the Prospective Shippers and other shippers with whom IPL may require an FSA and who may, in return, seek unapportioned access. Consequently, in the event that other shippers enter into an FSA for expanded facilities, the Board expects that amendments to the Prospective Shippers' FSA may be required in order that there would be no unjust discrimination between the Prospective Shippers and shippers receiving unapportioned access to the expanded facilities.

Decision

If the Prospective Shippers wish to adjust their contracted volumes to accommodate new shippers, the Board requires that the resultant amended FSA be filed with the Board for its review at least 30 days prior to service being offered under the amended FSA.

In addition, the Board requires that any shipper who wishes to receive unapportioned access to the facilities if they are expanded, be party to an FSA with IPL. Such an FSA must be filed with the Board for its review at the time IPL applies for approval of the facilities under Part III of the Act.

Further, the Board requires that any amendments which would be necessary to the Prospective Shipper' FSA so as to avoid unjust discrimination between the Prospective Shipper and shippers receiving unapportioned access to the expanded facilities be filed with the Board for its review at least sixty days prior to the proposed in-service date for the expanded facilities.

Chapter 10

Toll Design

10.1 Allocation of the Proposed Facilities' Costs

As noted in section 1.1. IPL requested approval, under Part IV of the Act, of a toll design methodology for its proposed NGL facilities. IPL's methodology would add, or "roll in", a portion of the revenue requirement associated with the project to the revenue requirements for IPL's existing services¹. The remaining portion would comprise a surchargeable revenue requirement. Shippers using the NGL facilities would pay the light-crude receipt terminalling charge, the light-crude receipt tankage charge, and an additive NGL Receipt Facilities Surcharge (the latter being derived as the NGL surchargeable revenue requirement divided by the volumes projected to use the NGL facilities during a test year). Shippers using the facilities would also pay the transmission and delivery charges, as applicable, for transportation of their commodity.

To determine the allocation of the NGL facilities' costs between the light-crude and the surchargeable bases, IPL proposed that the cost of facilities of a comparable level and nature to those that would be required for light crude be rolled in to the light-crude base. Facilities or costs of facilities which, as a result of the special characteristics of NGL, are over and above that level would be surcharged. In applying this criterion IPL contended that, with the exception of that portion of the fill line located off its own property and the appurtenances required for the return of off-spec NGL, the proposed facilities would constitute basic service comparable to that provided to light crude. While IPL acknowledged that it could build a crude oil tank of equivalent capacity to the NGL storage vessels at its existing Edmonton tank farm, it projected that if operations necessitated an additional crude oil tank at Edmonton, IPL would propose building one of such a size that it, like the proposed NGL storage vessels, would have to be located across the highway from the existing tank farm. Accordingly, in its allocation of costs between the light-crude and the NGL-surchargeable bases, IPL proposed using a light-crude tank located across the highway as the base to which it would compare the costs of the proposed NGL project. As a result, the additional receipt terminalling costs associated with locating the vessels across the highway would be allocated to the light-crude base. In its application, IPL provided calculations to illustrate how its methodology would apply to the NGL facilities. IPL's illustration projected that approximately 42 percent of the project's capital costs would be rolled in to the light-crude base.

In addition to the cost allocation framework noted above, and in keeping with the five basic service categories distinguished in its current toll design, IPL functionalized the project's capital costs between the receipt terminalling and the receipt tankage functions. The cost of the storage vessels would be functionalized to the receipt tankage function whereas the additions to the receipt terminalling function would comprise primarily the cost of the fill line, the pump-out line and the associated metering and

¹ IPL's current toll design distinguishes between five basic services, these being receipt tankage, receipt terminalling, transmission, delivery terminalling, and delivery tankage. Because the basis of IPL's current toll design is the charge for light crude (the charges for all other commodities being expressed in terms of those for light crude), the portion of rolled-in costs was referred to during the proceeding as "costs rolled in to the light-crude base".

pipings (IPL's proposed NGL Receipt Facility Surcharge would recover the combined revenue requirement of the surchargeable receipt terminalling and receipt tankage costs).

IPL submitted that the primary consideration in toll design is the principle of cost causality, but that the joint-cost nature of IPL's pipeline system makes it impossible to determine precisely the costs associated with providing service to each particular commodity. IPL submitted that the basis of its toll design is one integrated revenue requirement, to which cost allocation procedures are applied in order to determine, in an appropriate manner, cost-based tolls for the various services and commodities. IPL suggested that the roll in of those costs associated with providing service to a commodity which are consistent with those incurred to provide service to light crude is in accordance with its approved toll design. In this regard, IPL submitted that its proposed toll design for the project was derived from the Board's most recent toll methodology decision for IPL, that being dated November 1989 in respect of RHW-1-89.¹

IPL argued that, in the RHW-1-89 Decision, the Board rejected the concept of identifying the incremental costs of facilities with specific users for toll design purposes (i.e. stand-alone tolls). IPL argued, in addition, that it would be unfair to isolate all the costs of the NGL facilities and to treat them on a stand-alone basis, as other new shippers requiring basic tankage or terminating service would not be treated in such a manner but would instead enjoy a roll in of costs to the light-crude base. IPL also noted that in the RHW-1-89 Decision, the Board stated that not all facility additions would automatically be appropriate for inclusion in a general pool of transmission costs eligible for the toll treatment of integrated surcharges. IPL concluded that the proposed NGL facilities fall outside the scope of costs which should be eligible for integrated surcharge treatment. In this regard, IPL submitted that the difference between the cost of NGL facilities and the cost of those facilities which would be required for providing the same basic service to crude oil, would not be appropriately reflected at this time by a percentage surcharge (accompanied by a full roll in of the project's costs) similar to that for transmission costs. Specifically, IPL suggested that the limited volumes associated with the project, and the difference in the maturity of the proposed service compared to the rest of IPL's system, detracted from the appropriateness of a percentage surcharge.

IPL submitted that its proposed toll design would also satisfy toll design objectives such as fairness, economic efficiency, understandability and acceptability, ease of administration, and toll stability. With respect to the latter, IPL suggested that the FSA would decrease the likelihood of fluctuating NGL volumes and thus make the proposed additive NGL surcharge more stable than such a surcharge might otherwise be. With respect to economic efficiency, IPL suggested that its proposed toll design was superior to either a stand-alone, or rolled-in toll structure because it would be a blend of current replacement costs and depreciated historical costs.

During the proceeding, IPL stated that the proposed facilities would require extensive modifications to accommodate crude or condensate, and that the storage vessels would not be suited for low vapour

¹ In that decision the Board approved the use of hypothetical pipelines for determining percentage surcharges to reflect the relative differences in capital and power costs imposed by each commodity on IPL's system. However, reflecting IPL's contention that, at the time of the RHW-1-89 proceedings, the Company's terminalling-related costs did not vary by commodity, these percentage surcharges apply only to the transmission component of IPL's tolls. The Board also approved the discontinuation of additive surcharges for refined products and NGL allowing that, instead, special facilities associated with these commodities be reflected in the hypothetical pipelines designed for them and thus reflected in the transmission-related percentage surcharges.

pressure service for both environmental and economic reasons. IPL also indicated that there, would be no technical compatibility between the proposed NGL vessels and the receipt tanks which are required for crude oil.

The Prospective Shippers, CanStates, and Gulf supported IPL's proposed toll design. The Prospective Shippers submitted that IPL's toll design proposal was completely consistent with the RHW-1-89 Decision and reiterated IPL's position that that Decision rejected the identification of specific pipeline assets with specific shippers. The Prospective Shippers also argued that some parties' toll-design notion of considering whether facilities can be used by other hydrocarbons is inappropriate. The Prospective Shippers suggested that are many instances on IPL's system where portions of the pipeline are used only by certain shippers or certain commodities but that this is a consequence of IPL being a multi-product, multi-destination facility. CanStates submitted that IPL provides tankage to various commodities and that only one of these must represent the base case with all others being more or less costly to handle. CanStates noted IPL's contention that its proposed toll design is consistent with the Board-approved method for a multi-stream product pipeline, and requested equal treatment under existing cost allocation methods which, it submitted, reflect that all shippers use various parts of the total system.

In contrast with IPL's and the Prospective Shippers' view, IPAC argued that IPL's proposed toll design would be inconsistent with the principles of the RHW-1-89 and RH4-86¹ Decisions. IPAC noted that, in the RH-4-86² Decision, the Board stated that cost-based tolls should yield the result that users of the system bear the financial responsibilities for the costs caused by the transportation of their hydrocarbon stream through the line. IPAC submitted that, to properly implement the principle of cost causality, the first steps of toll design should be to examine whether costs can be ascribed to a particular function, commodity, or shipper. If this can be done, there is no need to use hypothetical models which examine what facilities would be required for a different stream. Cost allocation procedures are appropriate for common-use facilities.

Given this philosophy, IPAC noted that the proposed NGL facilities would be used solely by NGL, and more importantly, that there would be no technical compatibility between the applied-for facilities and those which are required for crude oil. IPAC concluded that IPL's proposed toll methodology for the applied-for facilities was inappropriate, and opposed a roll in of any of the project's costs into the light-crude base. IPAC characterized IPL's proposal as an erosion of the toll-design principles presently being applied by the Board.

¹ In that decision the Board approved the use of hypothetical pipelines for determining percentage surcharges to reflect the relative differences in capital and power costs imposed by each commodity on IPL's system. However, reflecting IPL's contention that, at the time of the RHW-1-89 proceedings, the Company's terminalling-related costs did not vary by iples
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IPAC noted that in respect of toll design, it supports the unbundling of services in the furtherance of reflecting cost causality. With respect to toll design for the existing NGL service (which comprises receipt terminalling to Amoco), IPAC suggested that the costs associated therewith be added to the pool of receipt terminalling costs which it advocated be established for the proposed NGL facilities, and charged equally to all users of the facilities. In making this recommendation, IPAC admitted that it was not fully aware of the technical configuration associated with this service.

Amoco indicated that the position it took during the RHW-1-89 proceedings was that receipt and delivery tankage do not form part of basic service on the IPL system. Amoco further submitted that the concept of basic service on the IPL system is premised on interchangeability and flexibility of facilities. Because the NGL facilities would not be able to be used by crude oil, the facilities should be viewed as providing a new service rather than a basic service. Amoco argued, accordingly, that it is inappropriate to "squeeze" NGL into the light-crude, basic-service category and that no part of the facilities should be rolled in to the light-crude base. Amoco submitted that, in the event it were found appropriate to roll in a portion of the facilities' costs, the proportion proposed by IPL would be too high. Amoco noted that IPL agreed that the NGL storage vessels would be unique and argued that it is the unique space requirements of NGL storage vessels which would cause IPL to construct them across the highway. Amoco suggested that the associated higher costs should not be rolled in.

APMC argued that only a stand-alone toll would be in accordance with the toll principles which the Board established in the RH-4-86 and RHW-1-89 Decisions; i.e. that tolls should be fair, cost-based, minimize cross-subsidisation wherever possible, adhere to the principle of user-pay, and be non-discriminatory.

APMC argued that it is critical to make a distinction between a jointly-used facility, such as the main transmission line of IPL, and a special-use or single commodity-use facility, such as the applied-for NGL facilities. In APMC's view, the integrated surcharge method for commonly-used facilities is in complete accord with the principle of cost-based user-pay tolls. However, for the applied-for NGL facilities, which are not common-use but can only be used by one commodity, any form of roll in is inappropriate. APMC questioned whether IPL had demonstrated that the light-crude-equivalency method of toll design currently in place on IPL has been applied to any portion of the IPL system other than for transmission costs.

In commenting on IPL's proposed toll methodology, APMC stated that the concept of basic service was a "red herring" and that this concept should not interfere with the Board's consideration of how best to apply accepted toll principles. It further stated that if basic service was interpreted to mean that the tankage costs for physically and economically distinct commodity types should be considered jointly, then it disagreed with this concept of basic service. APMC noted that, in any event, there was no evidence that tankage is a basic service because many shippers provide their own tankage. APMC noted that the proposed facilities would be physically unique on IPL's system in the sense that they would be used by one single commodity stream. It also noted that because of the proposal of the Prospective Shippers that their access to the facilities be provided on an unapportioned basis, the service would be unique in a contractual as well as a physical sense.

APMC also argued that IPL was, in effect, attempting to redefine the meaning of a "special facility". It stated that a special facility has in the past been defined as a facility which was used, or is capable of being used, by one particular type of product or one that has been demonstrated not to be part of an integrated system. In APMC's view, under IPL's toll proposal a special facility would be redefined as

"any portion of a facility's costs which are in excess of the costs of the equivalent facilities required to provide comparable basic light-crude services". APMC argued that such a definition of a special facility was incorrect because it does not focus on the use of a facility but only on its relative costs.

In concluding, APMC allowed that, should a stand-alone treatment yield tolls which are unacceptable to the Prospective Shippers or IPL, these parties could consider proposing a toll levelling mechanism to the Board.

Views of the Board

The Board has carefully considered the arguments put forth by all parties with respect to both toll principles and their application in the circumstances of this case. With respect to toll principles, it notes that during these proceedings, the RH-4-86 and RHW-1-89 Decisions were cited extensively. The Board does not believe that parties took issue with the toll principles enunciated therein, but that parties simply had differing views as to how to apply those principles to the circumstances of this case. Therefore, in reaching its toll design decision here, the Board found it appropriate to examine the principles and concepts addressed in the RH-4-86 Decision.

In RH-4-86, the Board enunciated two principles in developing a toll methodology for IPL:

- First, it indicated that tolls should be, to the greatest extent possible, cost-based; in other words, the concept of user-pay should be applied.
- Second, the Board stated that it would apply the principle of ensuring that unjust discrimination does not exist in the tolls.

With respect to the first of these principles, the Board stated that designing IPL's tolls to be as cost-based as practicable should result in users of the system bearing the financial responsibilities for the costs of transporting their particular hydrocarbon. As well, it said that all reasonable efforts should be made to minimize cross-subsidization and that, if these objectives are attained, then the resultant tolls can reasonably be characterized as cost-based. The Board went on to note that a proponent of a project is in a better position to assess the economic viability of the project when faced with unsubsidized transportation tolls based on the user-pay principle.

The Board believes that adherence to the principles it enunciated in RH-4-86 requires that the proposed NGL facilities be tolled on a stand-alone basis. In particular, the Board believes that the principle of user-pay would best be reflected by stand-alone tolls. The Board does not believe that any unjust discrimination would exist if the proposed NGL facilities are tolled on a stand-alone basis because they are unique on IPL's system and because all users of the proposed facilities would be treated equally for the service they would be receiving from those facilities (for more details regarding how the costs of future expansions should be treated, see Section 10.4).

In the Board's view, there is an important distinction to be made between facilities which are dedicated to one shipper or one commodity group and facilities which serve, or which can reasonably be expected to serve, many shippers or commodity groups.

With respect to the ability of facilities to serve commodity groups, the Board would characterize as "joint use" those situations involving facilities which handle, or could economically be modified to handle, more than one commodity group at a time; and as "alternate use" those situations where facilities could handle, or economically be modified to handle, a commodity group which they do not currently serve, while ceasing to accommodate the original commodity group. The Board believes that in situations of joint or alternative-use facilities, cost responsibility may not be directly apparent, and that cost-allocation methodologies may be appropriate. Of course, in a situation where a potential for joint use or alternate use may exist, before applying a light-crude-equivalency toll methodology such as the one proposed here by IPL, the Board would have to be satisfied that there was a reasonable expectation that a joint or alternate use would materialize.

In the circumstances of the proposed NGL facilities, the Board finds that there is no reasonable potential for joint or economic alternate use. The receipt tankage facilities (the storage vessels) will have no technical compatibility with the existing crude oil tanks, thus not providing a similar level of flexibility to IPL's system as other terminalling and tankage facilities currently provided by IPL. Moreover, the Board notes that the receipt terminalling facilities have been designed specifically for NGL service. In addition, the total estimated cost of the NGL facilities is materially different from that of comparably sized light-crude oil batch-accumulation and injection facilities.

In view of the foregoing, the Board does not believe that a cost-allocation methodology, such as the light-crude equivalency approach proposed here by IPL, is appropriate. The costs associated with the proposed NGL facilities can clearly be attributed to their users and the principle of user-pay can best be applied by a stand-alone approach. Further, such treatment would minimize any potential cross-subsidization and therefore ensure that any related business decisions are made on the basis of appropriate price signals. In addition, the Board notes that competing privately-owned facilities may be available to inject NGLs into either the IPL or Cochin systems. The Board believes that this fact further enhances the appropriateness of tolling the NGL facilities on a stand-alone basis.

The Board accepts IPL's contention that the FSA should result in a fairly stable volume of NGL being tendered for shipment. In the Board's view, this should promote stability of the stand-alone toll.

The Board is cognizant of IPL's and the Prospective Shippers' contention that there are examples of facilities on IPL's system the costs of which are rolled in but which are being used by a single commodity group. The Board is also aware of the argument that facilities in isolated locations along a pipeline may be, to all intents and purposes, useable by only a single shipper. However, the Board believes that these cases are not analogous to the proposed NGL facilities. The proposed facilities have been designed specifically for NGL and are not practically useable for any other commodity group. By contrast, the potential exists for those existing facilities to be used by other commodity groups and shippers. As well, the projected costs of the proposed facilities are materially different from those of equivalent facilities for other commodity groups.

shipped on the IPL system. Nevertheless, the Board is prepared to examine, at a future Class 3 toll hearing, the status of particular existing facilities. If it finds that there is no reasonable potential that they would be used alternatively or jointly by other commodity groups or shippers, and that the costs of such facilities are materially different from similar facilities used by other commodity groups and shippers on the system, the Board would consider the appropriateness of continuing to toll these facilities under the existing methodology.

With respect to operating costs, the Board notes that IPL's illustrative calculations showed that incremental fuel and power costs would be incurred for the transmission of the incremental NGL volumes which would materialize as a result of the proposed facilities. The Board recognizes that these costs are not related specifically to the proposed terminalling and tankage facilities, but to the joint-use transmission facilities. Therefore, the Board accepts the roll in of these costs. The Board also notes IPL's contention that some fuel and power costs will be incurred for the booster pumps. The matters of the materiality of these fuel and power costs and the appropriate toll treatment of these costs, if found to be material, were not examined during the hearing. Accordingly, at the time IPL applies for approval of tolls with respect to the proposed facilities, these matters will be examined by the Board. Apart from these fuel and power costs, the Board believes that all of the costs of operating and maintaining the proposed NGL facilities should be treated on a stand-alone basis.

The Board points out that its views on the appropriate toll design methodology for the NGL facilities are not dependent on, and were not influenced by, any of the issues associated with the FSA and the Prospective Shippers' request for unapportioned access.

Decision

The proposed NGL batch-accumulation and injection facilities will be treated on a stand-alone basis. That is, a separate revenue requirement will be calculated for them, based on the capital costs associated with their construction, and the operating and maintenance expenses associated with their operation. Any fuel and power costs associated with the transmission of incremental NGL shall be rolled into the transmission component of IPL's revenue requirement.

10.2 Calculation of the Toll for the Proposed Facilities

A question arose during the hearing as to whether it would be appropriate to implement a two-tier toll design methodology for the use of the proposed facilities, whereby a shipper receiving unapportioned access would pay a higher toll than a shipper who uses the facilities on an interruptible basis. IPL was of the view that, in the absence of the FSA, a shipper receiving unapportioned access should pay for that higher level of service through higher tolls than a shipper receiving interruptible service. However, IPL contended that, in this case, the obligations undertaken by a signatory to the FSA would constitute an extra cost and therefore suggested that no additional distinction be made in the tolls between those with and without unapportioned access.

IPAC did not believe that a two-tier toll design would alleviate the concerns it had with respect to granting unapportioned access on a common carrier.

As noted in Section 10.1, APMC submitted that, should the tolls which result from a stand-alone toll design be unacceptable to IPL or the Prospective Shippers, that it would be open for them to consider and bring forward a levellized toll design for the consideration of the Board.

Views of the Board

10.3 Total Toll for IPL-Provided NGL Batch-Accumulation, Injection and Terminalling

In response to information requests, IPL submitted that if the proposed NGL facilities were to be treated on a stand-alone basis, NGL shippers using the facilities should then be required to pay the stand-alone toll but be exempt from the light-crude receipt terminating charge. IPL suggested that its toll design reflects charges for the various services which it provides, without regard to which specific facilities may be utilized in providing the service to a particular shipper. IPL submitted that if shippers using the proposed facilities paid the full amount of the costs associated therewith, they would be paying for receipt tankage and receipt terminalling services. To charge them as well the light-crude receipt terminalling charge, for example, would result in the shippers paying twice for the same service.

Amoco took issue with IPL's perception of what charges should be paid by the Prospective Shippers under a stand-alone toll scenario. Amoco submitted that it provides its own facilities up to IPL's Line 1 meter header, and is subject to, *inter alia*, IPL's receipt terminalling charge. Amoco argued that if the Prospective Shippers were to build the proposed facilities instead of IPL, those facilities would deliver NGL to the same Line 1 meter header as Amoco. Accordingly, notwithstanding a stand-alone toll design for the proposed facilities, it would be inconsistent with IPL's current practice to not also charge the Prospective Shippers the receipt terminalling charge.

Views of the Board

The Board has considered the facilities which comprise IPL's proposed NGL project and understands that they will move the Prospective Shippers' volumes only as far as the existing Line 1 meter manifold. From there they will use the same facilities as are currently used for other streams flowing into IPL's Line 1 for transmission. This being the case, the Board does not believe that the stand-alone toll on its own would reflect the cost of terminalling services which would be provided to the users of the NGL facilities. Accordingly, the Board considers that Prospective Shippers should be required to pay the light-crude receipt terminalling charge to reflect their use of existing common-use terminalling facilities, as well as a stand-alone toll for the proposed NGL facilities. This would result in consistent treatment with other shippers who provide their own batch-accumulation facilities for injection into Line 1.

Decision

Users of the proposed NGL facilities shall pay the light-crude receipt terminalling charge and the applicable transmission and delivery charges as well as a stand-alone toll as described in Section 10.2.

10.4 Toll Treatment for Expansions of the Proposed Facilities

During the hearing, IPL indicated that if it were to expand the proposed facilities at Edmonton, it envisaged that there would be one common surcharge for use of the total NGL facilities.

In conjunction with its proposed stand-alone toll design, the APMC also recommended that any future expansion costs should be rolled into the rate base for the NGL facilities and charged equally to all future users of the NGL storage service.

Views of the Board

Section 62 of the Act states that all tolls shall be just and reasonable, and shall always, under substantially similar circumstances and conditions with respect to all traffic of the same description carried over the same route, be charged equally to all persons at the same rate. Accordingly, the Board is of the view that, unless circumstances at the time of expansion dictate otherwise, the costs associated with an expansion to the NGL facilities should be added to the costs associated with the currently proposed facilities. One common toll would then be calculated for use of the combined facilities and levied on all users thereof.

Decision

Unless the Board finds that circumstances at the time of expansion dictate otherwise, the costs associated with the construction and operation of an expansion to the NGL facilities at Edmonton shall be rolled together with the costs associated with the currently-proposed facilities, and one common toll calculated for use of the combined facilities. This toll shall be levied on all volumes using the facilities.

IPL shall file, for the approval of the Board, tolls so calculated in advance of these tolls being charged.

Chapter 11

Disposition

The foregoing chapters, together with Order XO-1-91 constitute our Reasons for Decision and our Decision on this matter.

R. Priddle
Presiding Member

R.B. Horner, Q.C.
Member

W.G. Stewart
Member

Ottawa, Canada
15 February 1991

Appendix I

Proposed NGL Accumulation and Injection Facilities

General Plot Plan

Figure A1-1
Proposed NGL Accumulation and Injection Facilities
General Plot Plan

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Appendix II

Proposed NGL Accumulation and Injection Facilities Major Piping Schematic

Figure A2-1
Proposed NGL Accumulation and Injection Facilities
Major Piping Schematic

Appendix II

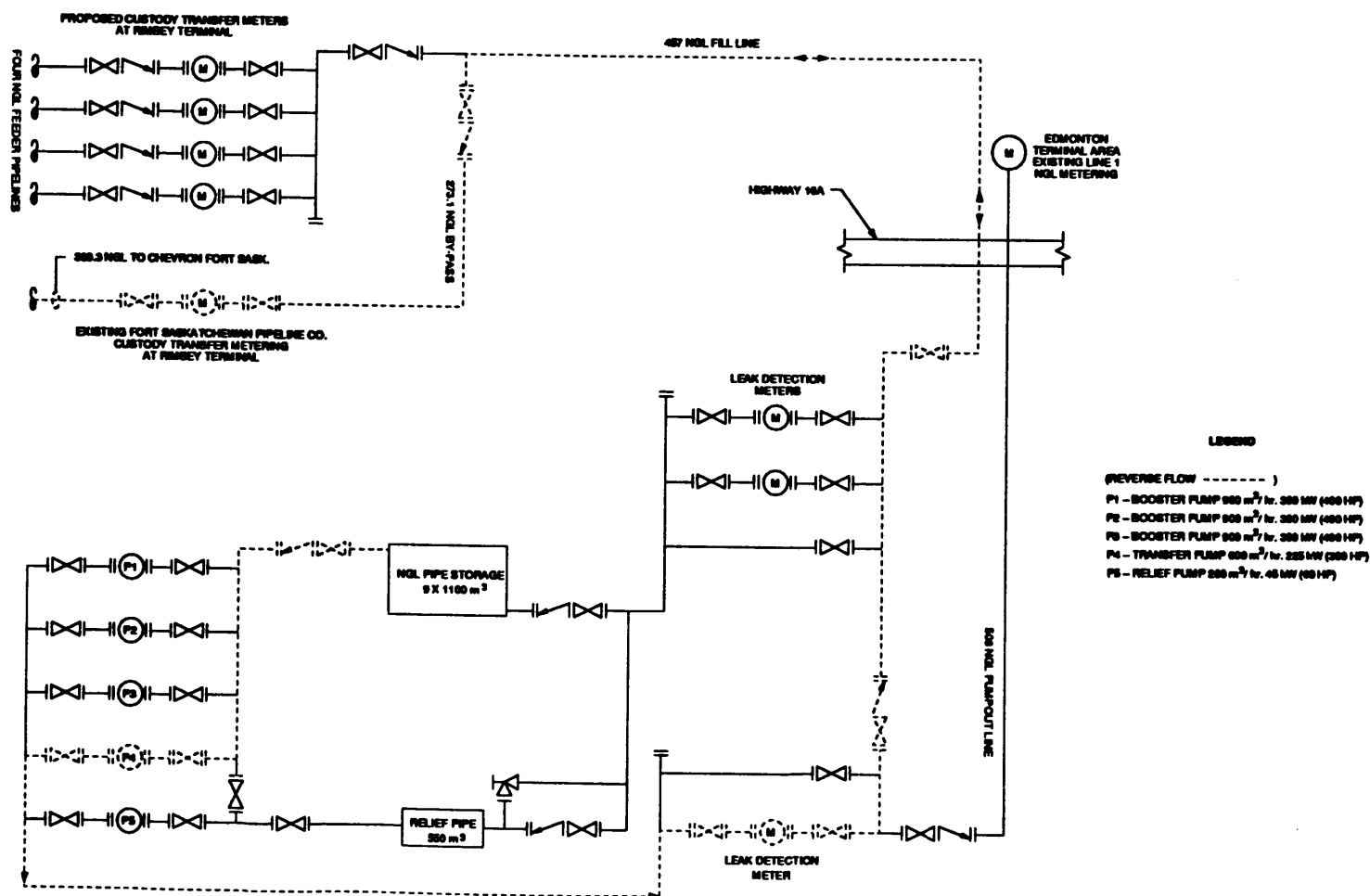


Appendix III

Proposed NGL Accumulation and Injection Facilities Functional Flow Diagram

Figure A3-1
Proposed NGL Accumulation and Injection Facilities Functional Flow Diagram

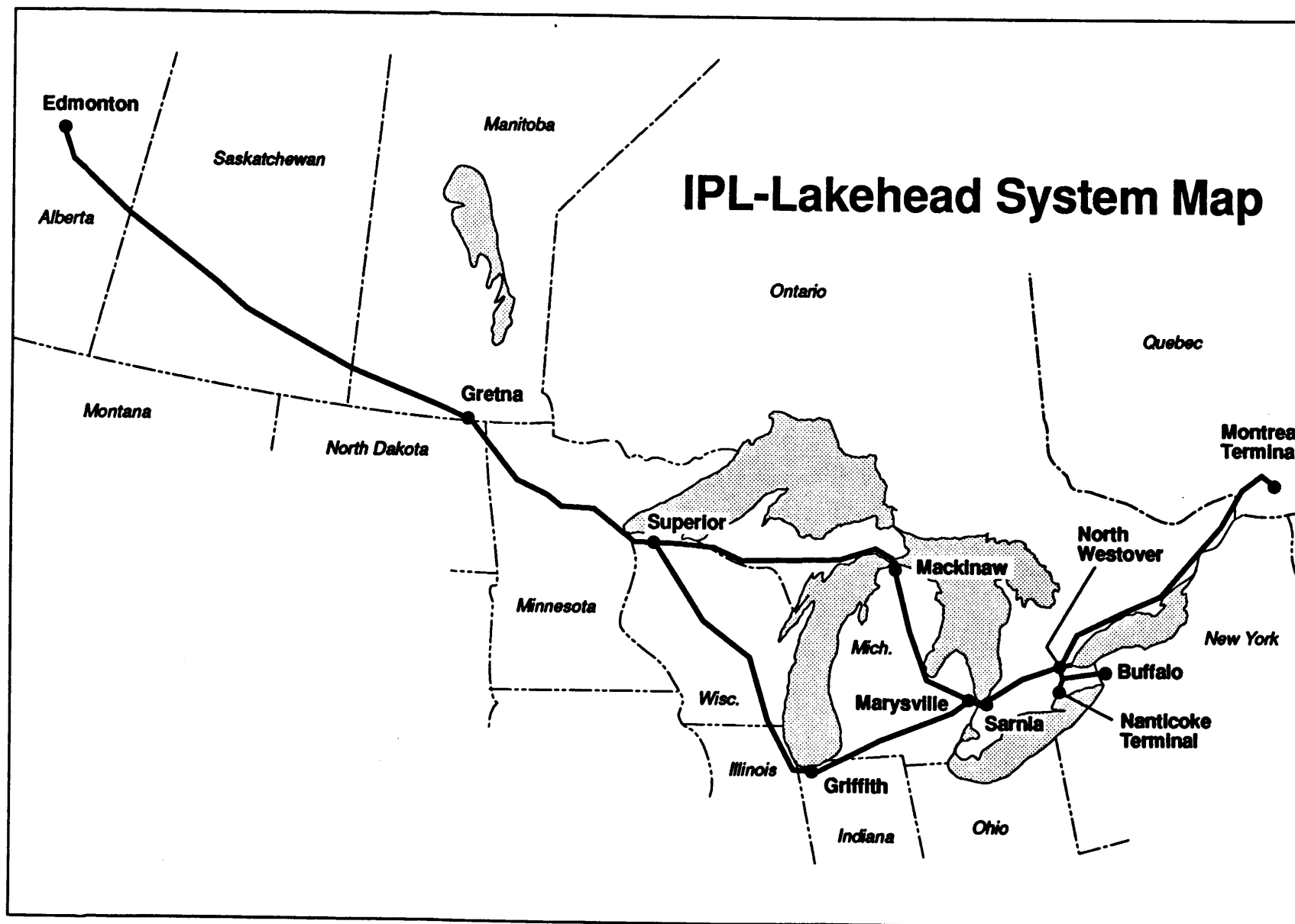
Proposed NGL Accumulation and Injection Facilities Functional Flow Diagram



Appendix IV

IPL-Lakehead System Map

Figure A4-1
IPL-Lakehead System Map



Appendix V

Order XO-1-91

IN MATTER OF *National Energy Board Act* (the "Act") and the regulations made thereunder; and

IN THE MATTER OF an application, pursuant to section 58 and 59 of the Act, by Interhome Energy Inc., which carries on its pipeline operations under the name "Interprovincial Pipe Line Company, a division of Interhome Energy Inc." ("IPL"); filed with the Board under File No. 3400-J1-14.

BEFORE the Board on the 15th day of February 1991.

WHEREAS IPL has submitted an application to the Board dated 30 April 1990, to construct and operate natural gas liquids batch-accumulation and injection facilities consisting of a fill line, nine 2.032 metre diameter, 350 metre long steel storage vessels and a pump-out line for injection into Line 1 of IPL's pipeline system;

AND WHEREAS, pursuant to the *Environmental Assessment and Review Process Guidelines Order* ("EARP Guidelines Order"), in conjunction with the Board's consideration of environmental effects under Part III of the Act, an environmental screening of the application has been completed by considering the information submitted by IPL;

AND WHEREAS the Board has determined that the potentially adverse environmental effects including the social effects directly related to those environmental effects that may be caused by the installation of the proposed facilities are insignificant or mitigable with known technology;

AND WHEREAS the Board heard evidence and submissions from IPL and all intervenors with respect to the application through a written hearing held pursuant to Hearing Order GHW-5-90, and at an oral hearing held to Hearing Order RH-3-90, as amended;

AND WHEREAS IPL has demonstrated that the proposed facilities are required for the accumulation and injection of natural gas liquids into IPL's Line 1;

AND WHEREAS the Board has examined the application and considers it to be in the public convenience and necessity to grant the relief requested therein;

IT IS ORDERED THAT the project described in Schedule A attached to and forming part of this Order is exempt from the provisions of paragraph 30 (1)(a), and subsections 31 (a), (c) and (d) of the Act, subject to the following conditions:

1. Prior to commencement of construction, IPL shall:
 - (i) submit for Board approval the final design and configurations of the facilities, including descriptions of any hazard-prevention or mitigation measures, where these differ from or are in addition to those submitted in the application;
 - (ii) file with the Board the information required to complete IPL's responses to questions Nos.: 3,4 (i), 4 (ii), 4 (iv), 7,13 (ii), 15 (ii), 15 (iii), 16 (i), 16 (ii), 19 (ii), and 19 (v), contained in the Board's information request of 13 August 1990 pursuant to GHW-5-90;

- (iii) provide the Board with a detailed construction schedule identifying the major construction activities; and
 - (iv) provide the Board with evidence that the land rights necessary for the fill and pump-outlines have been secured.
- 2. IPL shall cause the construction and installation of the project to be commenced on or before 31 December 1992.
- 3. During construction, IPL shall file:
 - (i) monthly construction cost reports providing a breakdown of costs incurred during that month, the percentage completion of each activity and an update of projected costs to complete the project; and
 - (ii) an updated construction schedule in the event that significant changes to the schedule provided pursuant to subsection 1 (iii) occur.

NATIONAL ENERGY BOARD

Marie Tobin
Secretary

Schedule A to Order XO-1-91

IPL Section 58 Application

Facilities to Accumulate and Inject NGL into Line 1

Description	IPL's Estimated Capital Cost (\$000) ¹
Underground Storage Vessels	7,747
Custody Transfer and Leak Detection Meters	1,720
Fill Line	806
Pump-out Line	797
Pumps	575
Valves ²	—
Buildings	109
Other Facilities ³	3,821
AFUDC	1,188
Engineering, General and Administration	<u>1,281</u>
Total Estimated Capital Cost	<u>18,044</u>

1 Includes materials, installation, land and land rights.

2 The cost of valves is included in the cost of the fill line, pump-out line, pumps and custody transfer and leak detection meters.

3 Includes site work, flare system, level gauge system, inlet piping system, storage pump-out piping, booster pump piping, electrical facilities instrumentation and control, cathodic and fire protection, inspection costs and final clean-up costs.