



National Energy Board

---

## Reasons for Decision

**North Canadian Oils Limited**

**GH-2-90**

**July 1990**

---

**Gas Exports**

# **National Energy Board**

---

## **Reasons for Decision**

In the Matter of

**North Canadian Oils Limited**

**GH-2-90**

**July 1990**

© Minister of Supply and Services Canada 1990

Cat. No. NE22-1/1990-7E  
ISBN 0-662-18057-7

This report is published separately in both official languages.

**Copies are available on request from:**

Regulatory Support Office  
National Energy Board  
473 Albert Street  
Ottawa, Canada  
K1A 0E5  
(613) 998-7204

Printed in Canada

Ce rapport est publié séparément dans les deux langues officielles.

**Exemplaires disponibles sur demande auprès du:**

Bureau du soutien à la réglementation  
Office national de l'énergie  
473, rue Albert  
Ottawa (Canada)  
K1A 0E5  
(613) 998-7204

Imprimé au Canada

# Table of Contents

<b>List of Appendices</b> .....	(ii)
<b>Abbreviations</b> .....	(iii)
<b>Recital and Appearances</b> .....	(v)
<b>1. The Application</b> .....	1
<b>2. Reasons for Decision</b> .....	2
2.1 Market-Based Procedure .....	2
2.1.1 Complaints Procedure .....	2
2.1.2 Export Impact Assessment .....	2
2.2 Environmental Screening .....	3
2.3 Gas Supply .....	3
2.3.1 Supply Contracts .....	3
2.3.2 Established Reserves .....	3
2.3.3 Productive Capacity .....	5
2.4 Energy Removal Authorization .....	7
2.5 Markets .....	7
2.6 Contractual Arrangements .....	8
2.6.1 Transportation .....	8
2.6.2 Gas Sales Contracts .....	9
2.7 Disposition .....	11

## **List of Appendices**

I	Terms and Conditions of Each of the Licences to Be Issued to North Canadian Oils Limited .	13
---	--	----

## Abbreviations

the Act	<i>National Energy Board Act</i>
ANR	ANR Pipeline
Bcf	billion cubic feet
Bankeno	Bankeno Resources Ltd.
the Board	National Energy Board
CPCo	Consumers Power Company
DOE/FE	(U.S.) Department of Energy, Office of Fossil Energy
the EARP Order	Environmental Assessment and Review Process Guidelines Order
EIA	export impact assessment
ERCB	(Alberta)Energy Resources Conservation Board
FERC	Federal Energy Regulatory Commission
Great Lakes	Great Lakes Transmission Company
m	metre
m <sup>3</sup>	cubic metre(s)
m <sup>3</sup> /d	cubic metre(s) per day
MCV	Midland Cogeneration Venture Limited Partnership
MDQ	Maximum Daily Quantity
MGSCo	Michigan Gas Storage Company
MMcf/d	million cubic feet per day
MW	Megawatt
NCO	North Canadian Oils Limited
NEB	National Energy Board
PURPA Regulations	Regulations issued under the authority of the Public Utility Regulatory Policies Act of 1978

Poco	Poco Petroleums Ltd.
TransCanada	TransCanada PipeLines Limited
TransGas	TransGas Limited
U.S.	United States of America
vs	versus
WACOG	weighted average cost of gas

## Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* and the Regulations made thereunder; and

IN THE MATTER OF applications for gas export licences from North Canadian Oils Limited pursuant to Part VI of the *National Energy Board Act*.

HEARD in Ottawa, Ontario on 19 June 1990.

BEFORE:

W.G. Stewart	Presiding Member
--------------	------------------

R.B. Horner, Q.C.	Member
-------------------	--------

A. Côté-Verhaaf	Member
-----------------	--------

APPEARANCES:

A.S. Hollingworth	North Canadian Oils Limited
-------------------	-----------------------------

F.X. Berkemeier	Consumers Power Company
-----------------	-------------------------

L. Keough	Midland Cogeneration Venture Limited Partnership
-----------	--

J. Schatz	TransCanada PipeLines Limited
-----------	-------------------------------

W. Killeen	Union Gas Limited
------------	-------------------

G. Toews	Western Gas Marketing Limited
----------	-------------------------------

J.A. Vockeroth	National Energy Board
----------------	-----------------------



# Chapter 1

## The Application

---

By its applications dated 24 November 1989, North Canadian Oils Limited ("NCO") sought, pursuant to Part VI of the *National Energy Board Act* ("the Act"), two new natural gas licences to authorize exports to Consumers Power Company ("CPCo") and Midland Cogeneration Venture Limited Partnership ("MCV").

The volumes proposed to be exported to CPCo and MCV by NCO equate to a portion of the volumes authorized in 1989 for export by Poco Petroleum Ltd. ("Poco") to CPCo and MCV under Licences GL-117 and GL-118 respectively. On 10 May 1990 Poco applied to the National Energy Board ("the Board") requesting that the volumes authorized for export under each of these Licences be reduced by  $283.3 \times 10^3 \text{ m}^3/\text{d}$  (10.0 MMcf/d), i.e. by the same volume proposed to be exported by NCO. The Board has approved Poco's application, subject to Governor in Council approval.

The gas proposed for export would be produced from reserves in Saskatchewan owned by NCO or by its subsidiary, Bankeno Resources Ltd.<sup>1</sup> ("Bankeno"). In Canada, the gas would be transported by TransGas Limited ("TransGas") and TransCanada PipeLines Limited ("TransCanada") to Emerson, Manitoba. In the United States, with respect to the CPCo volumes, the gas would be transported on Great Lakes Gas Transmission Company ("Great Lakes"), ANR Pipeline Company ("ANR") and then into the CPCo system. With respect to the MCV volumes, the gas would be shipped on Great Lakes to interconnect with the facilities of Michigan Gas Storage Company ("MGSCo"). On leaving MGSCo, the gas would be shipped briefly on CPCo's transmission system to MCV's own pipeline for delivery to the cogeneration facility.

The gas to be exported would be used by CPCo for system supply and by MCV in a combined cycle, gas-fired cogeneration plant located in Midland, Michigan.

NCO applied for licences for each of the proposed exports with the following terms and conditions:

Term	to run to 31 October 2000
Point of Export	Emerson, Manitoba
Maximum Daily Quantity	$283.3 \times 10^3 \text{ m}^3$ (10.0MMcf)
Maximum Annual Quantity	$103.4 \times 10^6 \text{ m}^3$ (3.6 Bcf)
Maximum Term Quantity	$1068.6 \times 10^6 \text{ m}^3$ (37.7 Bcf)
Tolerances	10 percent on the daily and 2 percent on the annual.

---

<sup>1</sup> Upon payment for shares tendered, NCO will own 99.4 percent of the outstanding common shares of Bankeno and will effect statutory proceedings to acquire the remainder.

# Chapter 2

## Reasons for Decision

---

### 2.1 Market-Based Procedure

The Board, in considering an export application, must take into account the requirements of section 118 of the Act which requires that the Board have regard to all considerations that appear to it to be relevant. In particular, the Board must satisfy itself that the quantity of gas to be exported does not exceed the surplus remaining after due allowance has been made for reasonably foreseeable Canadian requirements, taking account of trends in discovery.

To comply with the requirements of section 118 of the Act, the Board utilizes its Market-Based Procedure. The discussion of the Board's Market-Based Procedure that follows in Subsections 2.1.1 and 2.1.2 of this Report applies to the GH-2-90 proceeding.

The Market-Based Procedure includes consideration of the following:

- complaints, if any, under the complaints procedure;
- an export impact assessment ("EIA"); and
- any other factors that the Board considers relevant to its determination of the public interest.

#### 2.1.1 Complaints Procedure

The complaints procedure gives Canadian gas users an opportunity to object to an export proposal on the grounds that they have not had an opportunity to obtain additional supplies of gas under contract terms and conditions, including price, similar to those contained in the export proposal.

The Board notes that no complaints were received with respect to the NCO export proposals.

#### 2.1.2 Export Impact Assessment

The purpose of the EIA is to assist the Board in determining whether a proposed export is likely to cause Canadians difficulty in meeting their future energy requirements at fair market prices. When the Market-Based Procedure was first introduced, each export applicant was required to file an EIA that assessed the ability of Canadian natural gas producers to meet Canadian and export requirements for gas, the impact of the proposed export on domestic natural gas supply, demand and prices, and the ability of Canadian energy markets to adjust to these changes without difficulty.

Pursuant to a review of EIA filing requirements that was conducted in the fall of 1989, the Board decided that while it would continue to retain an EIA as part of its Market-Based Procedure, it would conduct its own assessment which would not be project-specific. Applicants now have the option of using the Board's EIA or of preparing and submitting their own EIA as a basis for arguing whether the proposed exports would result in adjustment difficulties in Canadian energy markets.

NCO elected to rely on the Board's most recent EIA but reserved the right to prepare its own analysis should a problem arise during the information request process or if there were market adjustment problems. No such problems were identified during the hearing process.

Based on the Board's most recent EIA, the applied for export volumes would have little impact on Canadian production, consumption and prices of natural gas and Canadian energy users would not have any difficulty in meeting their future energy requirements as a result of the proposed exports.

## **2.2 Environmental Screening**

On 8 February 1990, the Minister of Energy, Mines and Resources, the Honourable Jake Epp, wrote to the Board requesting clarification on how the Board complied or would comply with the Environmental Assessment and Review Process Guidelines Order ("the EARP Order") in arriving at its decision to issue licences for the export of natural gas. In his response to the Minister, the Chairman of the Board advised that, in compliance with the EARP Order, the Board would be instituting a screening procedure to examine the potential environmental effects of each export proposal before the Board.

The purpose of the environmental screening is to enable the Board to reach one of the conclusions required by section 12 of the EARP Order. To that end, the Board held a written hearing, pursuant to Hearing Order GH-2-90, wherein it considered submissions from the applicant as well as submissions from all interested parties to GH-2-90.

NCO filed with the Board environmental information concerning the potential environmental effects of the proposal and the social effects directly related to those environmental effects, including any effects that are external to Canadian territory.

Interested parties were served with the written submissions of NCO and were provided with an opportunity to provide their written views on the issues referred to in those submissions. NCO was then afforded an opportunity to reply to the written submissions from interested parties.

The Board has completed its environmental screening and has concluded that in respect of the two export proposals of NCO, the potentially adverse environmental effects and the social effects directly related thereto are insignificant or mitigable with known technology.

## **2.3 Gas Supply**

### **2.3.1 Supply Contracts**

Since NCO intends to supply CPCo and MCV with gas from its own pools or pools that it controls through its subsidiary Bankeno, no gas supply contracts were required.

### **2.3.2 Established Reserves**

The supply for the CPCo and MCV Natural Gas Purchase Agreements has been dedicated by NCO from various lands in the Bigstick area in southwestern Saskatchewan. The gas would be produced from the Second White Specks pool. Table 1 shows that the Board's estimate of NCO's remaining established marketable reserves, projected to 1 November 1990, is 7 percent higher than that of NCO

but 13 percent lower than NCO's applied-for term volume. Both estimates of reserves were determined on the basis of after payout working interest. NCO's estimate of its reserves was derived using production decline analysis applied to individual wells, whereas the Board used an alternative methodology, involving volumetric analysis.

**Table 1**  
**Comparison of Estimates of NCO's**  
**Remaining Marketable Reserves<sup>1</sup>**  
**with the Applied-for Volume at 1 Nov. 1990**

<b>10<sup>6</sup>m<sup>3</sup></b> <b>(Bcf)</b>		
NCO	NEB	Applied-for
1743	1866	2138
(62)	(66)	(76)

1. Both NCO's and the NEB's estimates of NCO's reserves are net of cumulative production which is projected to be 636.0 10<sup>6</sup>m<sup>3</sup> (22.5Bcf) by 1 Nov. 1990.

NCO's use of performance data was based on a study conducted by the Alberta Energy Resources Conservation Board ("ERCB") on shallow gas pools in southeastern Alberta. This study concluded that a low permeability well should exhibit curvature on a rate-time semilog production history plot for approximately three years, followed by a straight-line portion (exponential decline) for the remaining life of the well. Beginning in the fourth year of production, the ERCB data show an average exponential decline of 7.5 percent for the combined Milk River, Medicine Hat and Second White Specks formations and a unique exponential decline of 4.9 percent for the Second White Specks formation.

NCO assumed an 8 percent exponential decline starting at approximately the 22nd month of production, whereas the ERCB data show the straight-line portion of the decline beginning in the 36th month. However, NCO chose the higher decline rate because it was unsure as to whether the Second White Specks would exhibit an exponential decline of 7.5 percent or 4.9 percent beginning in the fourth year. In addition, NCO noted that productivities for a number of individual wells were difficult to estimate because rates were constrained by production facilities.

Because it used an 8 percent exponential decline rate, NCO stated that its estimate of reserves is 11 percent lower than that which would be obtained using the lower decline rate suggested by ERCB data for the Second White Specks pool.

NCO also provided a volumetric estimate of remaining marketable reserves of  $2707 \times 10^6 \text{M}^3$  (95.5 Bcf) but considered its estimate based on production decline analysis to be more reasonable and therefore relied on the latter estimate of reserves in its submission.

The Board's estimate of NCO's reserves, based on volumetric analysis is  $1866 \times 10^6 \text{M}^3$  (65.9 Bcf), which is 31 percent lower than NCO's volumetric estimate. The difference in volumetric estimates between NCO and the Board is primarily due to differences in interpretation of net pay thicknesses. The Board used an average net pay of 2.4 m, as opposed to the NCO's average net pay estimate of 4.4 m. Other differences in reservoir parameters partially compensate for the difference in net pay estimates. The Board adopted higher estimates of both gas saturation (65 percent vs. 55 percent) and average porosity (21 percent vs. 17 percent) than did NCO. The Board's volumetric estimate of reserves, although lower than that of NCO for the above reasons, is in general agreement with the production decline reserves estimate calculated by NCO.

NCO also indicated that, in addition to the dedicated reserves in the Application, it has approximately  $2 \times 10^6 \text{m}^3$  (74.1 Bcf) of additional uncontracted reserves in the vicinity of the Bigstick Second White Specks pool. These additional reserves are in the Second White Specks, Milk River and Medicine Hat formations and are available as a backstop to provide additional supply for the proposed export, if needed.

### **2.3.3 Productive Capacity**

A comparison of the Board's projection of productive capacity with the applied-for volumes (i.e. contractual requirements at a 100 percent load factor), including fuel and shrinkage, is shown in Figure 2-1. The Board's projection indicates sufficient productive capacity until 1996 and progressively increasing shortfalls in productive capacity thereafter.

NCO provided a projection of tracked productive capacity versus its expected requirements, meaning at a 70 percent load factor for the combined CPCo/MCV sale. Figure 2-2 compares the Board's and NCO's projections of productive capacity to NCO's requirements at a 70 percent load factor. NCO's projection shows adequate productive capacity until 1995 whereas the Board's projection suggests that deficiencies in productive capacity are not likely to occur over the term of the proposed licences. The difference in outlook is primarily attributed to the Board's higher estimates of reserves and pool capability.

NCO used production decline methodology to derive its projection of productive capacity as well as its estimate of reserves. As noted earlier, the decline rate that was used is somewhat higher than that observed from ERCB data for the Second White Specks zone. The higher decline rate results in a more conservative projection of productive capacity. In its assessment of productive capacity, the Board assumed that the majority of NCO's wells were capable of a more conventional production profile, and hence, its overall projection of productive capacity is higher than that of NCO.

NCO stated that it could rely on currently undedicated reserves to backstop the reserves that are dedicated to the applied-for exports. The undedicated reserves are primarily contained in the Bigstick Second White Specks pool, but are also found in the Milk River and Medicine Hat zones of the dedicated lands.

NCO also provided detailed information on its overall corporate supply and requirements. On a corporate basis, NCO showed that it had a large surplus of supply relative to requirements throughout the term of the proposed export.

## **Views of the Board**

The Board has considered estimates of NCO's reserves derived using both production decline and volumetric methods. The Board recognizes that at this stage of depletion of the reserves, it is unclear as to which method might provide more reliable estimates of reserves. The production decline method used by NCO may be conservative in that a more severe decline rate than that generally applicable to the Second White Specks zone has been used. However, it is also uncertain as to whether the production rates on which this decline has been based represent stabilized rates consistent with the ERCB analysis.

### **Figure 2-1 Comparison of NEB's estimate of productive capacity to NCO's annual requirements**

### **Figure 2-2 Comparison of NCO's & NEB's estimates of annual productive capacity**

The Board's volumetric analysis of NCO's reserves, while providing an estimate substantially lower than that developed by NCO using volumetric methods, is in general agreement with the NCO reserves estimate based on production decline analysis. Considering both the approach to reserves determination used by NCO and its own analysis, the Board is of the view that the estimate of dedicated reserves submitted by NCO is reasonable and may in fact be somewhat conservative.

With regard to productive capacity, the Board's projection of NCO's productive capacity from the dedicated reserves exceeds NCO's expected requirements (contractual requirements at 70 percent load factor). The Board's projection, when compared to the applied-for volumes, indicates satisfactory productive capacity only to 1996. However, the Board acknowledges that NCO can backstop its gas supply with undedicated reserves in the same area and with its overall corporate gas supply.

Based on its review of NCO's dedicated reserves and productive capacity in the Bigstick Second White Specks pool, NCO's uncontracted reserves in southwestern Saskatchewan and evidence provided on NCO's overall corporate supply and requirements, the Board is satisfied that NCO has a sufficient gas supply to support the applied-for exports.

Figure 2-1

## COMPARISON OF NEB'S ESTIMATE OF PRODUCTIVE CAPACITY TO NCO'S ANNUAL REQUIREMENTS

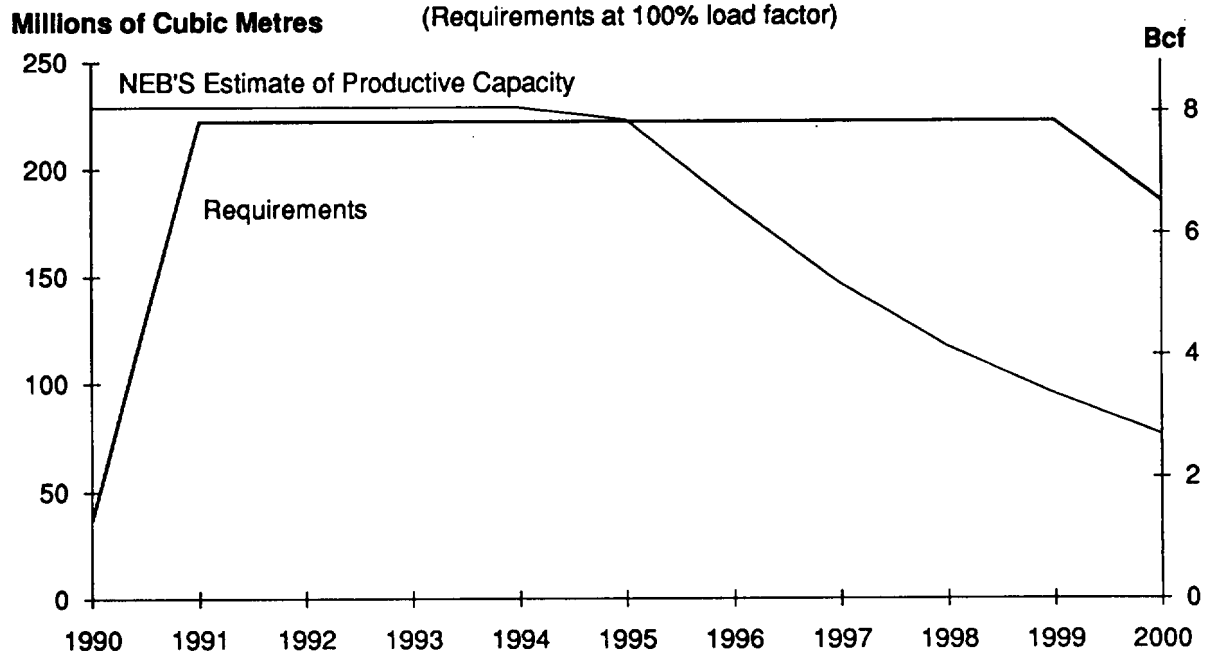
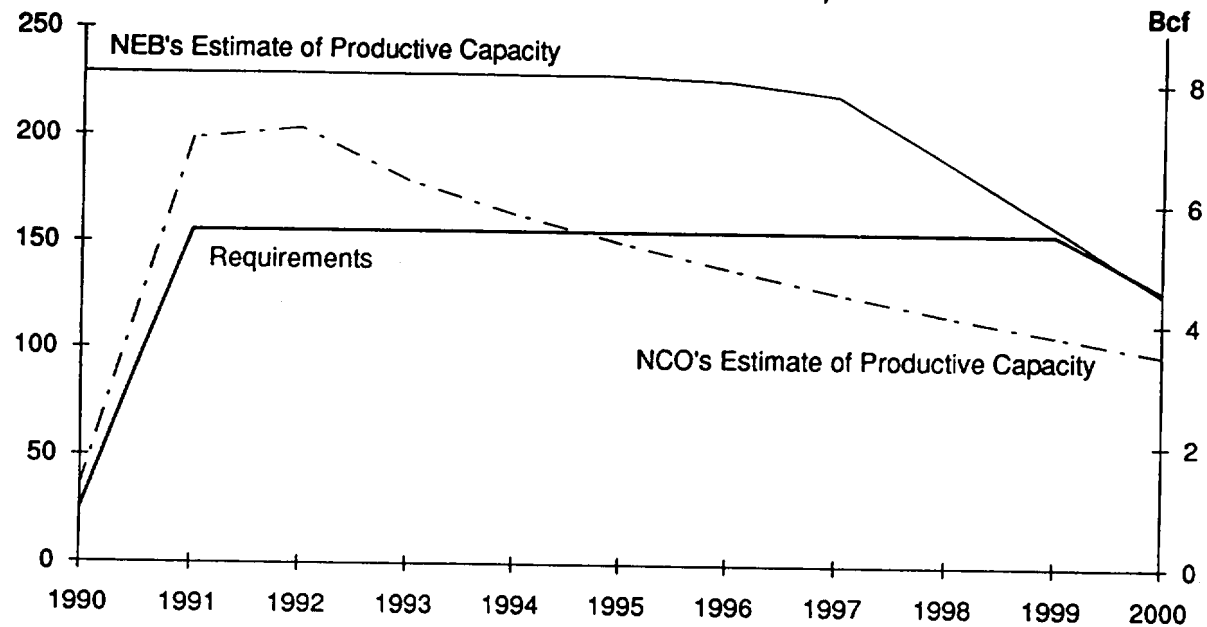


Figure 2-2

## COMPARISON OF NCO'S & NEB'S ESTIMATES OF ANNUAL PRODUCTIVE CAPACITY

Millions of Cubic Metres

( Requirements at 70% load factor)





## **2.4 Energy Removal Authorization**

NCO has received notification that a gas removal permit will be issued to it by Saskatchewan upon NEB approval of its GH-2-90 applications.

## **2.5 Markets**

NCO noted that in the GH-8-88 proceeding the Board found the CPCo and MCV markets to be satisfactory and that little had changed since the Board issued its GH-8-88 Decision in June 1989. NCO chose not to adopt evidence from that proceeding and, as a result, provided updated market data for CPCo and MCV.

### **CPCo**

The gas proposed for export to CPCo would be used as system supply to be resold in its franchise area in the lower peninsula of Michigan. CPCo, the operating subsidiary of CMS Energy Corporation, is the sixth largest gas distributor in the United States, supplying natural gas to 1.3 million residential, commercial and industrial customers. In addition, CPCo operates the largest electric utility in Michigan. CPCo's market for gas is temperature sensitive, with 70 percent of its sales made between November and April. CPCo is able to maintain high load factors on its purchases because of the large storage capacity available from its system or from that of its wholly owned subsidiary, MGSCO.

In 1987, CPCo embarked on a program to diversify, strengthen and reduce its supply costs. As a result, CPCo signed a long-term supply contract with Trunkline Gas Company and MGSCO entered into a ten year agreement with Panhandle Eastern Pipeline Company. In addition, CPCo has contracted to purchase more than  $1699.6 \times 10^6 \text{ m}^3$  (60.0 Bcf) from U.S. and Canadian producers for various terms over the next 15 years, with Canadian gas representing approximately 10 percent of its system supply.

CPCo forecasts that the historical decline in its natural gas requirements has subsided. While it is anticipated that there will be growth in the number of customers over the next twelve years, CPCo does not expect any growth in gas sales as any growth in new gas installations will be offset by the effects of conservation.

NCO testified that deliveries to CPCo commenced on 6 October 1989 under a short-term order.

NCO testified that it would expect the load factor of its proposed export to CPCo to range between 70 and 100.

CPCo received United States of America (U.S.) Department of Energy, Office of Fossil Energy ("DOE/FE") import authorization on 4 April 1990.

### **MCV**

The gas proposed to be exported to MCV would be used in a combined cycle, gas-fired cogeneration plant located in Midland, Michigan. MCV consists of a consortium of companies including Midwest Energy Investors, CMS Midland Inc., Coastal Midland Inc., C-E Midland Energy, Inc., Rofan Energy, Inc., Fluor Venture Group and Source Cogeneration Co.

The plant, which is a qualifying facility<sup>1</sup>, consists of twelve gas-fired turbine generators and two steam turbine-generators. The plant, which began commercial operation on 16 March 1990, has a total electric power generating capacity of 1370 MW and a steam generating capacity of 1.35 million pounds per hour.

Electric power from the plant will be sold to CPCo under a 35-year sales agreement starting at 804 MW and increasing to 1240 MW by 1995. MCV will sell electric power and steam to Dow Chemical Company under a separate 25-year agreement. Initially Dow will purchase 60 MW of electric power and 629 000 pounds per hour of steam. The agreement permits Dow's purchases to increase to 75 MW and 1 million pounds per hour of power and steam respectively. The applicant indicated that MCV anticipates making additional electrical sales to other third parties and, in fact, three short-term power contracts have already been negotiated.

MCV has contracted for gas supply from the U.S. and Canada totalling  $5382.2 \times 10^3 \text{ m}^3/\text{d}$  (190.0 MMcf/d), of which  $2266.2 \times 10^3 \text{ m}^3/\text{d}$  (80.0 MMcf/d) will come from six Canadian suppliers, including NCO. While the initial fuel requirement for the plant is  $4447.4 \times 10^3 \text{ m}^3/\text{d}$  (157.0 MMcf/d), it is expected to increase to  $5665.5 \times 10^3 \text{ m}^3/\text{d}$  (200.0 MMcf/d) in 1995.

The applicant testified that deliveries to MCV commenced on 1 May 1990 under a short-term order.

NCO testified that the annual average load factor under the MCV Natural Gas Purchase Agreement is expected to be approximately 70 percent. If MCV is able to make additional power sales, the load factor should increase.

MCV applied for DOE/FE import authorization on 16 February 1990.

## **2.6 Contractual Arrangements**

### **2.6.1 Transportation**

#### **CPCo and MCV**

The gas would be transported on the TransGas and TransCanada pipeline systems to the Emerson, Manitoba export point. In the U.S., CPCo's gas would be transported on Great Lakes and ANR while MCV's gas would be shipped via Great Lakes and MGSCO, pass briefly through the CPCo system and then into MCV's own pipeline for delivery to the cogeneration facility.

With respect to transportation in Canada, NCO has two contracts with TransGas, one of which has been executed while the other was expected to be signed shortly. With respect to transportation on the TransCanada system, NCO filed copies of FS-Transportation Assignments between itself, Poco and TransCanada. In the U.S., with respect to the CPCo volumes, the Federal Energy Regulatory Commission ("FERC") has approved Great Lakes' application to transfer the relevant Transportation

---

<sup>1</sup>

A qualifying facility is a cogeneration plant that meets certain ownership criteria and operating and efficiency standards established by the (U.S.) *Public Utilities Regulatory Policies Act* of 1978 ("PURPA Regulations"). The ownership criteria provide that, with certain exceptions, a qualifying facility may not be owned by a person primarily engaged in the generation or sale of electric power. The operating and efficiency standards deal with the numerical relationships between the facility's total energy input, useful power output and useful thermal energy

Service Agreement between POCO and Great Lakes to CPCo. CPCo would use a portion of the capacity available under this contract to transport the gas to Crystal Falls, Michigan. ANR firm transportation service has been secured under an Agreement between CPCo, POCO and ANR dated 11 August 1989. As to the MCV volumes, Great Lakes applied to FERC on 16 February 1990 requesting a transfer of the relevant Transportation Service Agreement between POCO and Great Lakes to MCV. MCV and MGSCO have signed a Service Agreement dated 2 March 1988. MCV and CPCo have entered into a Gas Exchange Agreement dated 2 March 1988 to provide service to MCV through CPCo's gas transmission system after which the gas enters MCV's own 26-inch pipeline for delivery to the plant.

## **2.6.2 Gas Sales Contracts**

### **CPCo**

The gas proposed for export would be bought by CPCo from NCO under an executed Natural Gas Purchase Agreement dated 22 August 1989.

The agreement stipulates that prior to 1 August 1990 both parties must obtain all necessary Canadian and U.S. regulatory authorizations and secure firm transportation agreements in Canada and the U.S. Failing this, either party may give written notice of its intent to terminate the agreement within 30 days if the unsatisfied conditions precedent are not satisfied and accepted by both parties by that time.

The agreement provides for a Maximum Daily Quantity ("MDQ") of  $283.3 \times 10^3 \text{ m}^3/\text{d}$  (10.0 MMcf/d) effective on the date that firm deliveries are deemed to have commenced and ending on 31 October 2000.

The agreement contains a minimum take provision requiring CPCo to take an average of 70 percent of the MDQ each year or pay for the deficiency at 20 percent of the average commodity price for that year. To the extent that NCO does not deliver at least 90 percent of the volume requested, up to the MDQ, CPCo has the right to reduce the MDQ to the level of deliveries. Should the MDQ fall below 50 percent, CPCo can terminate the agreement.

The contract price will be the sum of the monthly demand and commodity charges, less the cost of Canadian and U.S. demand charges for any (as defined in the agreement) "Monthly Underdelivery". The demand charge, which must be paid by CPCo regardless of whether or not any gas is delivered, covers the cost of demand charges for firm transportation on Canadian pipelines.

The commodity charge component is based on a reference price equal to 93 percent of the monthly weighted average cost of gas ("WACOG") for CPCo and MGSCO assuming a 100 percent load factor under firm contracts (having a term of at least two years), on interstate pipelines, minus (from the reference price) U.S. transportation costs for NCO volumes.

### **MCV**

In the case of MCV, the gas would be bought by MCV from NCO under an executed Natural Gas Purchase Agreement dated 1 September 1989.

The agreement contains a number of conditions precedent with respect to the securement of regulatory authorizations and transportation agreements in Canada and the U.S. which must be satisfied by 1 September 1990. To the extent that any of the conditions precedent are not satisfied by that date, either party may give written notice of its intention to terminate the agreement if the outstanding matters are not resolved within 30 days.

The agreement provides for a MDQ of  $283.3 \times 10^3 \text{ m}^3/\text{d}$  (10.0 MMcf/d) effective on the date that firm deliveries are deemed to have commenced and ending on 31 October 2000.

The agreement includes a minimum take provision requiring MCV to take 50 percent of the MDQ each year or pay for the deficiency at that year's average commodity price. If NCO does not deliver at least 90 percent of the volume requested, up to the MDQ, MCV may reduce the MDQ to the level of deliveries. If the MDQ falls below 50 percent, the agreement may be terminated by MCV.

The contract price to be paid by MCV to NCO will be equal to the sum of the demand and commodity charges each month, minus the cost of Canadian and U.S. demand charges for any (as defined in the agreement) "Monthly Underdelivery". The demand charge, which must be paid by MCV regardless of whether or not any gas is delivered, is based on the total cost of demand charges for firm transportation on Canadian pipelines.

The commodity charge component is based on a reference price linked to the fixed and variable expenses of the MCV project. Basically, the cost is composed of the price of low sulphur coal from time to time (75 percent) and the consumer price index (25 percent). MCV would pay NCO the higher of this reference price or a price escalating at four percent per year.

## **Views of the Board**

The Board is satisfied that the agreements signed by NCO with CPCo and MCV provide for the recovery of all fixed transportation costs in Canada since each contains a provision requiring the demand charges to be paid regardless of whether or not gas is delivered.

In the case of CPCo, the commodity charge component of the export price is tied to CPCo's WACOG from interstate suppliers. With respect to the MCV volumes, the commodity charge portion of the price will increase by the higher of a price tied to the reference price or a price escalating at four percent per year. It is the view of the Board that the contractual pricing provisions permit adjustments in the export price to reflect changing market conditions.

The contracts include minimum take provisions for CPCo and MCV of 70 percent and 50 percent respectively. Additionally, as previously mentioned, the demand charges will be paid regardless of the volume delivered. The Board notes that deliveries to CPCo and MCV have already commenced under short-term orders. For these reasons, the Board believes that it can be reasonably expected that these export proposals will operate at a high load factor, thus ensuring a high level of take under the agreements.

In view of the fact that the gas proposed for export will come from reserves owned by NCO or by Bankeno, a demonstration of producer support was not required.

## 2.7 Disposition

The Board has decided to issue new gas export licences to NCO. The licences will take effect upon approval of the Governor in Council.

Appendix I contains the terms and conditions of the export licences.

In arriving at its decision, the Board has used its Market-Based Procedure to determine, *inter alia*, whether the volumes to be exported are surplus to reasonably foreseeable Canadian requirements. The Board has noted that there are no complaints to the proposed exports.

NCO elected to rely on the Board's EIA, which demonstrated that the exports would have little or no impact on total production, gas prices or Canadian consumption patterns and would cause Canadian energy users no difficulty in meeting their future energy requirements. In addition, the Board notes that with the equivalent reduction in the authorized volumes that Poco may export to CPCo and MCV, the granting of these licences to NCO will not result in a net increase in the total volume of gas authorized for export. Based on its review of these matters, the Board is satisfied that the proposed exports are surplus to reasonably foreseeable Canadian requirements.

As part of its Market-Based Procedure, the Board assessed a number of public interest factors, including gas supply, markets, gas sales contracts and transportation arrangements associated with the proposed exports.

With respect to NCO's estimate of gas reserves and productive capacity, the Board is satisfied that there is adequate gas supply to meet the requirements over the term of the export licences.

Having reviewed the NCO/CPCo and NCO/MCV agreements, the Board is satisfied that they were negotiated at arm's length, that they are of commercial substance and that they are likely to endure over time.

The foregoing chapters constitute our Reasons for Decision in this respect of GH-2-90 export applications.

W. G. Stewart  
Presiding Member

R.B. Horner, Q.C.  
Member

A. Côté-Verhaaf  
Member

Ottawa, Canada  
July 1990

# **Appendix I**

## **Terms and Conditions of Each of the Licences to Be Issued to North Canadian Oils Limited**

---

### **Terms and Conditions of Each of the Licences to Be Issued to North Canadian Oils Limited**

1. The term of this Licence shall commence on the date of Governor in Council approval hereof and end on 31 October 2000.
2. Subject to condition 3, the quantity of gas that may be exported under the authority of this Licence shall not exceed:
  - (a) 283 300 cubic metres in any one day;
  - (b) 103 400 000 cubic metres in any consecutive twelve-month period ending on 31 October, or
  - (c) 1 068 846 000 cubic metres during the term of this Licence.
3.
  - (a) As a tolerance, the amount that North Canadian Oils Limited may export in any 24-hour period under the authority of this Licence may exceed the daily limitation imposed in condition 2 by ten percent.
  - (b) As a tolerance, the amount that North Canadian Oils Limited may export in any consecutive twelve-month period under the authority of this Licence may exceed the annual limitation imposed in condition 2 by two percent.
4. Gas exported under the authority of this Licence shall be delivered to the point of export near Emerson, Manitoba.