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Northern Natural Gas Company and Great Lakes Gas Transmission Company  
(ERA Docket No. 78-002-NG, et al.), March 8, 1979.

Application to Import SNG from Canada by Displacement

[Opinion and Order]

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[Glossary of Abbreviations Not Produced.]

A. Project Description

Northern Natural Gas Company (Northern) of Omaha, Nebraska, proposes to import up to 75,000 Mcf per day of synthetic natural gas (SNG) by displacement

from Canada. The imported volumes are to be purchased from Union Gas Limited (Union).

Northern is a publicly owned corporation organized under the laws of the State of Delaware. Northern conducts business in the States of Texas, New Mexico, Oklahoma, Kansas, Nebraska, Colorado, Iowa, Illinois, Minnesota, Michigan, Wisconsin, Montana, Louisiana and South Dakota. Northern is also authorized to do business in Alaska, North Dakota, Wyoming, the U.S. Virgin Islands and the Province of Alberta, Canada.

Northern, its divisions and subsidiaries are engaged in the production, transmission, distribution and sale of natural gas and interrelated petrochemical and natural gas liquids activities. Northern owns over 32,000 miles (51,488 km) of natural gas transmission, gathering and distribution pipelines. The pipeline system extends throughout the central and midwestern states from Minnesota to Texas.

Union is a distribution company engaged in sales of natural gas in Ontario, Canada. Union's supply base consists of SNG volumes purchased from Petrosar Limited (Petrosar), Canada, and natural gas volumes purchased from TransCanada PipeLines Limited (TransCanada), Canada.

The Petrosar complex is primarily a petrochemical facility which processes Western Canadian crude oil to produce naphtha for petrochemical feedstock. Some of the by-products of the process are used as feedstock for SNG production. At present, the Petrosar facility has an SNG production capability of 33,000 Mcf (934.5 km<sup>3</sup>) per day. With the exception of small amounts of SNG used for its process requirements, Petrosar sells its total SNG production to Union. The SNG is transported directly through Union's pipeline from the Petrosar plant located near Sarnia, Ontario, to Union's compressor plant located in Dawn, Ontario.

The natural gas intended for sale to Union by TransCanada is delivered from the TransCanada pipeline at Emerson, Manitoba, to the Great Lakes Transmission Company (Great Lakes) whose pipeline extends across the northern United States. The natural gas reenters the TransCanada pipeline at the Michigan-Ontario border and is delivered and sold to Union at its compressor plant in Dawn, Ontario.

Great Lakes by its application of April 20, 1978, (Docket No. 78-003-NG) proposes to deliver natural gas volumes to Northern at designated points of interconnection near Carlton, Minnesota; Grand Rapids, Minnesota; and Wakefield, Michigan. These interconnections provide Northern with access to

the natural gas intended for sale to Union.

By purchase agreement of December 20, 1977, Northern and Union have an agreement whereby Northern will take delivery of natural gas from the Great Lakes pipeline which is intended for delivery and sale to Union in volumes equivalent to the volumes of SNG delivered to Union by Petrosar. Northern will actually receive natural gas volumes, but will assume the costs associated with the equivalent SNG volumes that Union purchases from Petrosar. Northern proposes to take delivery of the natural gas during the heating season months of November 1 through March 31 beginning in 1978 and ending in 1983. During the "off season" (April 1 through November 1) Union will store certain SNG volumes for Northern's account thus permitting Northern to vary the amount of the natural gas taken from the pipeline up to a maximum amount of 75,000 Mcf (2,123.8 km<sup>3</sup>) per day during the winter heating season. When Northern takes additional natural gas volumes intended for sale to Union during the heating season, Union will maintain its supply balance by drawing down on the SNG volumes that it stored in the "off-season" months. The proposed import volume represents less than one percent of Northern's total annual gas supply.

Northern estimates the SNG will cost \$3.86 per Mcf in U.S.A. funds<sup>1/</sup> for the first year with an escalation to \$5.33 per Mcf by the fifth contract year. The estimates were based on the Canadian dollar being valued at 89.05 percent of the American dollar as of March 9, 1978. The cost of the LNG to Northern will escalate in accordance with a formula contained in the Northern-Union supply contract. The contract allows for changes to the SNG price when the exchange value of United States and Canadian currencies fluctuates and when the price of Petrosar's crude oil feedstock varies.

Northern has conditioned its import proposal upon the approval by the Federal Energy Regulatory Commission (FERC) of a tariff that will provide for rolled-in pricing. Such a pricing mechanism would permit Northern to include the cost of the SNG in its overall system's average natural gas cost. Northern estimates an increase in its average natural gas price by 5.26 cents per Mcf in 1978-79 and as much as 8.47 cents per Mcf by 1982-83.<sup>2/</sup>

## B. Procedural History

On March 17, 1978, Northern filed an application with the Economic Regulatory Administration (ERA) of the Department of Energy (DOE), pursuant to Section 3 of the Natural Gas Act (NGA) and 18 CFR Parts 153 and 157, requesting authorization to import SNG, by displacement, from Canada into the United States (Docket No. 78-002-NG). On March 17, 1978, Northern filed a duplicate application with FERC pursuant to Section 7 of the NGA.

On April 20, 1978, Great Lakes filed an application with ERA and FERC pursuant to Sections 3 and 7 of the NGA and 18 CFR, Parts 153 and 157 requesting authority to amend its current import authorizations in FERC Docket Nos. CP66-110, et al., to allow the deliveries in Minnesota and Michigan of natural gas imported by Northern from Canada by displacement (Docket No. 78-003-NG).

FERC, in its concurrent proceedings, requested additional information from Northern in its deficiency letter of April 4, 1978. On May 5, 1978, Northern filed with the ERA and FERC a supplement to its original application in Docket No. 78-002-NG in response to the questions posed by FERC.

On June 29, 1978, the Administrator of ERA issued an Order consolidating Docket Nos. 78-002-NG (Northern) and 78-003-NG (Great Lakes), into Docket Nos. 78-002-NG, et al., in order that the instant dockets could be decided more expeditiously, since they contain common issues of fact and law. The June 29 Order also granted intervention to those companies filing petitions in response to the Federal Register notice of receipt of the Northern application<sup>3/</sup> filed in Docket No. 78-002-NG and to one petitioner filing in response to the Federal Register notice of receipt of the Great Lakes application<sup>4/</sup> filed in Docket No. 78-003-NG. No opposing comments or requests for a hearing were received.

On August 9, 1978, an Order was issued granting intervener status to five additional persons.<sup>5/</sup> No opposing comments or requests for a hearing were received from any of these five parties.

By letter of September 9, 1978, FERC posed additional questions to Northern. On October 13, 1978, Northern filed with ERA and FERC a second supplement to the original application in response to the additional questions posed by FERC.

On October 31, 1978, Union and Northern amended paragraphs 16 and 16A of the Gas Service Agreement of December 21, 1977, to prevent the agreement from expiring by its own terms and to establish an initial delivery period as well as a method for prorating the purchase requirements for the first contract year.

Concurrently with their proceedings before ERA and FERC, applicants and parties filed petitions with the Canadian National Energy Board (NEB) seeking requisite approvals from the Canadian Government to export the SNG by displacement. After a hearing and review, the NEB issued its "Reasons for Decision In the Matter of Applications under the National Energy Board Act of

Union Gas Limited and TransCanada PipeLines Limited" on August 17, 1978. In its decision the NEB indicated it was prepared to issue a license to Union to export gas to Northern provided that Union file with the NEB in satisfactory form, technical amendments to the supply contracts. Union filed with the NEB a revised contract between Union and TransCanada dated September 1, 1978 and a letter between Union and TransCanada dated September 13, 1978, reflecting the NEB's conditions. Subsequently, the export license was issued to Union by the NEB on October 10, 1978, and was approved by an Order in Council dated November 2, 1978.

By letter dated November 14, 1978, Northern supplemented its application by providing ERA and FERC with a copy of the amended version of paragraphs 16 and 16A in the Gas Service Agreement of December 21, 1977, and with a copy of the November 2, 1978, NEB Order authorizing export to Union.

### C. General Responsibilities and Considerations on Review of Natural Gas Import Applications

Sections 301 and 402(f) of the DOE Organization Act (DOE Act), give the Secretary of Energy the authority to authorize the import or export of natural gas pursuant to Section 3 of the NGA and to permit the building and operation of related border facilities pursuant to Executive Order No. 10485. The Secretary delegated this responsibility to the Administrator of the ERA on October 1, 1977.<sup>6/</sup> More recently, the Secretary has issued two delegation orders which redefine the areas of jurisdiction between ERA and FERC in deciding applications to import natural gas.<sup>7/</sup>

Under the delegations, ERA must determine whether an import is not inconsistent with the public interest pursuant to Section 3 of the NGA. In applying ERA's delegation, the Administrator has the authority to review and determine certain issues, as follows: (i) the security of supply; (ii) the effect on U.S.A. balance of payments; (iii) the price proposed to be charged at the point of importation; (iv) national need for the natural gas to be imported; and (v) consistency with duly promulgated and published regulations or statements of policy of DOE which are specifically applicable to imports of natural gas.<sup>8/</sup>

### D. Discussion of Considerations Germane to the Instant Proposal

#### 1. National Need

In considering the national need for the proposed import, the application was reviewed in light of DOE's preferred order of gas supplies and the

availability of natural gas supplies. DOE/ERA Opinion Number Two addressed the assessment of national need by elaborating on a preferred order of gas supplies.<sup>9/</sup> Insofar as the need for the gas is to be satisfied, domestic or intra-marginal sources of supply are preferred over marginal supplies of gas, such as SNG from imported petroleum. While natural gas would actually be transported under the proposed import arrangement, the fact that it is only available through displacement of SNG makes it, in effect, a direct SNG import and accordingly, a low priority marginal supply.

Furthermore, as described more fully in DOE/ERA Opinion Number Three,<sup>10/</sup> the Natural Gas Policy Act (NGPA) of 1978 and the Powerplant and Industrial Fuel Use Act (FUA) of 1978 are expected to make more gas available both in terms of overall quantities produced nationally and quantities made available to the interstate market. The NGPA establishes price incentives for the exploration for, and production of, domestic natural gas, and the FUA will promote the long-term conversion of major oil and gas burning facilities to coal. As a result of the passage of the NGPA and the FUA, it has been estimated that from 0.7 to 5 Tcf (22.65 Gm<sup>3/</sup> to 141.58 Gm<sup>3/</sup>) per year of additional domestic gas supplies could be available to the interstate market by 1985.<sup>11/</sup> These additional supplies will reduce the national need for imported gas.

## 2. Regional Need

Northern asserts in its application that its gas supply is being depleted and it has not been able to contract for sufficient new supplies. Northern also asserts that as depletion of its reserves occurs, its peak day and average day production capability also decrease. Northern further states that because of this occurrence, it has been unable to meet its contractual obligations to supply gas to its customers.

In assessing regional needs, ERA has determined that actual end-user needs provide a better measure of regional needs than contractual obligations between a pipeline distribution company and its customers. As stated in Opinion Number Three, pipeline contract obligations do not generally reflect individual gas utilities' need for supplemental gas supplies and supply deficits resulting from such an assessment are not reliable indicators of regional need. In determining regional need ERA assessed, among other factors, natural gas purchased by utilities from other suppliers, the impacts of energy conservation measures, and any self-help measures that may be taken by the utility of its end-users.

On September 18, 1978, FERC published its Commission Staff Reports on

the Impact of 1978-79 Winter Curtailment for Twenty-Nine Pipeline Companies (Curtailment Report). The Northern supply analysis as summarized in the Curtailment Report resulted in significant conclusions relating to regional need and the instant petition of which ERA is hereby taking notice.

At the request of FERC, Northern conducted a survey of its distribution customers to determine the impact on plant closings and unemployment in its market area should the Union SNG import project not be certificated for the 1978-1979 winter season. The survey request resulted in 72 responses representing over 98 percent of Northern's firm customer requirements. None of the customers responding to the survey indicated serious supply problems due to the unavailability of the imported SNG volumes. Those few responses which did register some supply concerns were summarized by FERC as follows:

One customer indicated that it had a high school, a small volume customer, which would be forced to close if weather was colder than normal. Five responses indicated they might experience shutdowns if Agriculture Crop Drying Service Gas (ACDS-1) is not available. However, the Commission recently approved the sale of up to 750,000 Mcf for a one-year period for seed and crop drying, to be sold as ACDS-1 gas which will prevent any plant shutdowns for these customers. Seven responses indicated no problems on their system assuming alternate fuel is available at the same level as the past several years.<sup>12/</sup>

Northern itself made the following conclusion regarding the survey responses.

If the project is not certificated for the 1978-1979 winter season, it is our opinion that the otherwise available gas supply plus other alternatives that Northern might utilize would act to prevent any increase in plant shut downs or unemployment over that indicated in our filing in TC78-22.<sup>13/</sup>

The Curtailment Report also indicated that Northern's Priority 2C and below customers have alternate fuel capability.<sup>14/</sup> In addition, it pointed out that many of Northern's customers have developed extensive self-help measures. Some of these include propane-air and LNG peak shaving plants and small underground storage systems. It is of interest to note that during the winter period of 1976-77 Northern curtailed all of its Priority 2C volume requirements, but no plant closings occurred. Furthermore, in the winter period of 1977-78, it curtailed Priority 3 end-users and no plant closings occurred.<sup>15/</sup>

In regard to natural gas imports involving high cost liquefied natural gas (LNG) or SNG, the DOE has expressed in Opinions Number Two, Three, and Four,<sup>16/</sup> a presumption in favor of distribution utilities working in cooperation with state regulatory agencies to determine their requirements for supplemental supplies. Opinion Number Four points out that utilities would then have the option to either develop their own sources of supply or contract directly with importers for specific volumes to be delivered directly to their system. It is important to note that in both Opinion Number One,<sup>17/</sup> and in the December 31, 1977, DOE/ERA Order to Distrigas and its affiliate, DOMAC<sup>18/</sup> approval was granted by DOE to import LNG based on the fact that specific volumetric need was individually determined by their distribution customers.

### 3. Import Price

The price Northern will pay Union for SNG purchases as set forth under the terms and conditions of the Gas Service Agreement dated December 21, 1977, between Northern and Union<sup>19/</sup> will be the sum of the gas price derived from the application of the Purchase Rate Formula<sup>20/</sup> and costs related to the storage of SNG by Union. This formula is based upon a similar formula that establishes the price Union pays to Petrosar for the SNG with the difference between the formulas being Union's mark-up service a charge<sup>21/</sup> and the cost of utilizing Union's facilities between the Petrosar plant and the Union Dawn station plant.

The Northern-Union price formula is derived from a base price of \$1.85 (\$2.078 Canadian) per MMBtu that was negotiated in 1974 between Union and Petrosar and is subject to escalation based upon the difference in the June 1974 Petrosar crude oil feedstock cost of \$6.36 (\$7.14 Canadian) per barrel and the current Petrosar crude oil feedstock cost. To this base cost of \$1.85 (\$2.078 Canadian) an additional \$0.104 (\$0.117 Canadian) per MMBtu is added for Union's pipeline services yielding a price of \$1.955 (\$2.195 Canadian) per MMBtu. A 21/2 percent markup service charge is also included in the purchase rate formula to provide for Union's cost of measurement, dispatching, accounting and billing of the gas. In addition to the costs built into the pricing formula, Northern estimates a \$0.31 (\$0.34 Canadian) per Mcf storage charge.

Northern has estimated the cost of the SNG over the life of the agreement by adopting the anticipated feed-stock prices used by Union in their presentations to the NEB and applying the purchase rate formula. On this basis, Northern projects an imported SNG price of \$3.86 (\$4.28 Canadian) per Mcf in the 1978-79 heating season increasing to \$5.33 (\$5.84 Canadian) per Mcf in the final contract years of 1982-83.

In evaluating the estimated imported price as contrasted with domestic natural gas prices it is of concern to us that Northern estimates a price for the displaced SNG that is significantly higher than the maximum prices for most domestic natural gas as established by the NGPA. DOE/ERA must analyze the proposed import price in light of the actual cost of producing the SNG at the Petrosar plant. FERC questioned Northern on the cost of SNG production in its April 20, 1978, deficiency letter. Northern's response indicated that this cost information was not available. Northern, however, has independently calculated that it will pay Union \$3.86 per Mcf for deliveries made during 1978-79 supply period which is in sharp contrast to the \$2.06 price (as of November 1978) that applies to domestic new natural gas as determined by the NGPA.<sup>22/</sup> Not only is the sizable difference between the prices significant in itself but also of great concern is the relative lack of information to provide DOE with the ability to determine the prudence of any increases in the operations and feedstock costs of the nonjurisdictional components during the life of the project.

On June 27, 1978, the NEB conducted a hearing to determine whether the proposal between Union and Northern is within the best interests of Canada. To demonstrate that the proposal passed the Canadian price test, Union testified that it had offered the SNG to other Canadian distributors at a price lower than the price offered to Northern and received no firm offers.<sup>23/</sup> Union further testified that it did not attempt to sell the gas for peaking service in Ontario because the gas was too expensive for that market.<sup>24/</sup>

A witness for Northern testified before the NEB that the proposed SNG purchase price is materially higher than the approximately \$2.00 per MMBtu it paid for its emergency gas in past winters.<sup>25/</sup> DOE notes that the proposed prices for the imported gas in this proposal also exceed the current U.S.A.-Canadian border export price of \$2.16 per MMBtu currently authorized by the NEB,

#### E. Conclusion

In reviewing an application for authorization to import or export natural gas, the Administrator mf ERA or his delegate may address each specific issue or only those discretionary issues found to be appropriate for determination of the individual case. However, if DOE determines that one issue germane to the case is not in the public interest and that it outweighs all other considerations, such a single finding is just and reasonable cause for denial of the application.

After our review of the merits of the application, in this case against

the standard established by Section 3 of the Natural Gas Act, and the criteria set forth in DOE Delegation Order No. 0204-25, we have determined that this import would not be "not inconsistent with the public interest."

The proposed SNG import price is too high. At present, the domestic new natural gas price ceiling as mandated by the NGPA is considerably lower than Northern's projected price estimate for the 1978-79 heating season. Furthermore, it is unlikely that in five years domestically, controlled prices will reach Northern's 1983 final contract year estimate of \$5.33 per Mcf. ERA notes that Union offered the SNG to Canadian distributors at a price lower than the price offered to Northern but was unable to sell the SNG.

In addition, Northern has not adequately determined regional need for this gas. Northern has developed its gas deficiency volumes based on the contract demand of its pipeline system rather than individual customer requirements. It is important to note that none of Northern's customers projected any serious supply problems due to the unavailability of the proposed import volume for the 1978-1979 winter season.

Moreover, the DOE takes a skeptical view of the relative value of importing high cost supplemental natural gas supplies intended to service regional or national need. Although the volume of gas involved in the instant proposal is small, applicants have the burden of demonstrating that the proposed import is necessary and in the national interest. In the instant case, applicants have not demonstrated significant regional or national need.

Furthermore, DOE believes that the NPGA and the FUA will make domestic natural gas more available both in terms of overall quantities produced and quantities available to national and regional markets thereby obviating the national need for costly marginal gas supplies such as this one.

DOE/ERA has a responsibility to determine and authorize import price at the Canadian-U.S.A. border but cannot do this with the information at hand. The purchase agreement between Northern and Union contains a gas pricing formula which permits unspecified price escalations at unspecified time intervals. Northern was asked to provide more precise information on feedstock costs and the cost of producing the SNG. Northern, however, indicated this information was not available.

Applicants, having the benefit of DOE/ERA Opinion's Number Three and Four and other decisions issued by ERA, are free to restructure their project in a manner likely to satisfy the presumptions and criteria set forth in those decisions, and to provide contract terms, such as escalator provisions,

which are equitable to the U.S. consumers. We would remind applicants, however, that each import proposal will be viewed on its merits in light of national energy policy.

Based upon the above findings, we conclude that the proposed import does not meet the statutory test for approval as contained in Section 3 of the Natural Gas Act in that approval of Northern's proposal would not be "not inconsistent with the public interest."

### ORDER

The Department of Energy orders:

Pursuant to Section 3 of the Natural Gas Act and Delegation Order No. 0204-25, the applications of Northern Natural Gas Company and the Great Lakes Transmission Company filed in consolidated ERA Docket No. 78-002-NG, et al., to import up to 75,000 Mcf (2,123.8 km<sup>3</sup>) per day of natural gas from Canada are hereby denied without prejudice.

Issued in Washington, D.C., on March, 1979.

--Footnotes--

1/ All dollar values are quoted in U.S. currency. Where conversions are made from Canadian currency to U.S. currency, the Canadian dollar is valued at 89.05 percent of the U.S. dollar. This exchange value was current on March 9, 1978, and was used by Northern in its application to ERA.

2/ Northern's estimate was based on projected annual system sales of 628,800,000 Mcf per year for each of the five years of the agreement divided into a total incremental cost of service ranging from \$33,083,580 in the first year to \$53,297,538 in the fifth year.

3/ 43 FR 16380, April 18, 1978.

4/ 43 FR 21715, May 19, 1978.

5/ All interveners and dates of application are as follows: April 2, St. Croix Valley Natural Gas Co.; April 24, Minnesota Gas Co.; May 1, Iowa Illinois Gas & Electric Co. and Iowa Power & Light Co.; May 2, Iowa Electric Light & Power Co.; May 10, Northern Illinois Gas Co.; May 11, Iowa Public Service Co. and North Central Public Service Co.; May 22, Public Service Commission of Wisconsin; May 24, Northern State Power Co. (Minnesota) and

Northern State Power Co. (Wisconsin).

6/ 42 FR 50726, November 29, 1977.

7/ DOE Delegation Order Nos. 0204-25 and 0204-26; 43 FR 47769, October 17, 1978. Delegation Order No. 0204-25, addressed to ERA, amends Delegation Order No. 0204-4. Delegation Order 0204-26 is addressed to FERC.

8/ In addition the Administrator has the discretion to consider other factors within the scope of Section 3 of the NGA which he finds in a particular case to be appropriate for his determination. These include regional needs for imported natural gas and the eligibility and respective shares of purchasers and participants. ERA may also review the proposed place of entry and the construction and operation of import facilities, but only on the basis of their impact on security of the gas supply and the import's effect on U.S.A. balance of payments.

9/ DOE/ERA Opinion Number Two, "Opinion on Rehearing," Pacific Indonesia LNG Company and Western LNG Terminal Associates, ERA Docket No. 77-001-LNG, September 29, 1978, pp. 5&6,

Domestic natural gas consumption will continue to draw primarily on the conventional supplies obtainable in the contiguous U.S.A. Such natural gas resources are within the reach of drilling technology--on shore and on the continental shelf--at locations near the established pipeline infrastructures. National energy policy recognizes the primacy of these proximate supplies of conventional gas, as enterprise develops them and claims access to U.S.A. markets. Other potential supplies are marginal or at least intramarginal with respect to U.S.A. markets, principally by reason of remoteness (as reflected in the transportation costs) or uncertain technology. Intramarginal supplies include gas from the Alaskan North Slope, various supplies from advanced technology applied to domestic resources, and overland supplies from neighboring sovereign countries, as mutual benefits may dictate such transactions. Marginal supplies include synthetic natural gas (SNG) from imported petroleum and LNG from abroad.

10/ DOE/ERA Opinion Number Three "Opinion and Order on Importation of Liquefied Natural Gas from Algeria by Tenneco Atlantic Pipeline Company and Tennessee Gas Pipeline Company, a Division of Tenneco Inc.", December 18, 1978, Docket No. 77-010-LNG.

11/ Because of the many variables which must be considered in

estimating natural gas supply, such as projections of the quality of the undiscovered resource base, finding ratios per foot of wells drilled, reserve-to production ratios, drilling costs, the opportunity cost of capital, and expansion capability of the industry, supply response estimates have varied over a wide range. Independent studies estimating the incremental supply of natural gas due to become available after implementation of the NGPA range from .7 Tcf to 5 Tcf in 1985, as follows:

	1985 (in Tcf)	Cumulative (1978-1985) (in Tcf)
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Independent Gas Producers Committee	5.0 (141580 Mm <sup>3</sup> /)	
American Gas Association	2.3 (65126.8 Mm <sup>3</sup> /)	12 (339792 Mm <sup>3</sup> /)
Draft Economic Analysis of House Conferees	up to 1.4 (39642.4 Mm <sup>3</sup> /)	6.0 (169896 Mm <sup>3</sup> /)
Energy Information Administration	1.0 (28316 Mm <sup>3</sup> /)	4.7 (133085.2 Mm <sup>3</sup> /)
Congressional Budget Office	.7 to .8 (19821.2 Mm <sup>3</sup> / to 226528 Mm <sup>3</sup> /)	N/A

12/ Curtailment Report, p. 145.

13/ Northern filed its gas supply report with FERC in Docket No. TC78-22 in its 1978-79 winter curtailment impact proceeding.

14/ Northern's priorities are defined in Northern Natural Gas Company FERC Tariff, Third Revised Volume No. 1 paragraph 9.2 of the General Terms and Conditions.

Northern's curtailment plan consists of the following priorities:

Priority 1: Residential, small commercial and industrial requirements.

Priority 2: (a) Customer storage injection requirements.

(b) Firm industrial requirements for plant protection; feedstock and process needs.

(c) Commercial and industrial requirements 300 to 450 Mcf (84948 m<sup>3</sup>/ to 14129.684 m<sup>3</sup>/) per day or less than 50,000 Mcf

annually.

Priority 3: All commercial requirements 500 to 1499 Mcf (14158 m<sup>3</sup>/ to 42445.684 m<sup>3</sup>/) per day and all industrial not specified in Priorities 1 through 10.

Priorities Industrial requirements with alternate fuel capabilities.

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15/ Curtailment Report, p. 141.

16/ DOE/ERA Opinion Number Four, "Opinion and Order on Application to Import LNG from Algeria by El Paso Eastern Company, El Paso LNG Terminal Company, El Paso LNG Company, United Gas PipeLine Company and United LNG Company," December 21, 1978, Docket No. 77-006-LNG.

17/ DOE/ERA Opinion Number One, "Opinion and Order on Importation of Liquefied Natural Gas from Indonesia," Pac Indonesia LNG Company and Western LNG Terminal Associates, December 30, 1977, Docket No. 77-001-LNG.

18/ DOE/ERA "Order on Importation of Liquefied Natural Gas from Algeria," Distrigas of Massachusetts Corporation and Distrigas Corporation, December 31, 1977, Docket No. 77-011-LNG.

19/ The Gas Service Agreement between Northern and Union sets forth a condition which gives Northern the option to limit the Petrosar feedstock cost used in the SNG purchase rate formula. Should the Petrosar feedstock cost used in the formula exceed 102 percent of the United States Composite Refiner Acquisition Cost of Crude Petroleum as published in the Monthly Energy Review by the National Energy Information Center, Northern may give Union 90 days notice of its intention to terminate the Gas Service Agreement.

20/ Northern-Union Purchase Rate Formula in Canadian dollars per MMBtu =  $[\$2.195 + 0.26 (FC - 7.14)] 1.025$ . FC = Feedstock Cost.

21/ Union's 21/2 percent markup service charge provides for the cost of measurement, dispatching, accounting and billing of the gas. It is included in the Northern-Union Purchase Rate Formula as the 1.027 Multiplier. (See Footnote 20.)

22/ Natural Gas Policy Act, Title I, Subtitle A, Section 102.

23/ See NEB's "Reasons for Decision In the Matter of Applications Under

the National Energy Board, Act of Union Gas Limited and TransCanada Pipelines Limited," August 1978, pp. 16&17. The Canadian Price Test, as established by the NEB, applies to all natural gas or SNG exports and consists of the following requirements:

1. That the export price recover its appropriate share of the costs incurred.
2. That the export price, under normal circumstance, not be less than the price to Canadians for similar deliveries in the same area.
3. That the export price of gas should not result in prices in the United States market area materially less than the least cost alternative for energy.

24/ Ibid, p. 13.

25/ Ibid, p. 17.