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ONTARIO ENERGY BOARD 1

2

E.B.R.O.
E.B.O.

3

IN THE MATTER OF the Ontario Energy Board Act, R.S.O. 1980, c.332;

4

AND IN THE MATTER OF an application by C-I-L Inc. pursuant to Sections 19 and 22 of the Ontario Energy Board Act for an Order or Orders approving or fixing the just and reasonable rates that Union Gas Limited may charge to C-I-L Inc. for the provision of storage and transportation services by Union Gas Limited to C-I-L Inc.

5

APPLICATION

1. C-I-L Inc. ("C-I-L") hereby applies pursuant to Sections 19 and 22 of the Ontario Energy Board Act (the "Act") for an Order or Orders of the Ontario Energy Board (the "Board"): 6

(i) approving or fixing the rates which Union Gas Limited ("Union") may charge C-I-L for the transportation and storage of natural gas at $189,374/month for a period of seven years from December 13, 1988, subject to adjustment according to the agreement (the "Agreement") between C-I-L and Union which is Schedule B to this Application; 7

(ii) establishing December 13, 1988 as the effective date for such rates; and 8

(iii) approving an agreement between C-I-L and Union for storage space in the amount of 38,000 10(3)m(3) 9

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and associated injection and withdrawal rights as set forth in the Agreement for a term of seven years, subject to adjustment in the volume of storage services in the manner set forth in the Agreement. 10

2. In support of the Application, C-I-L relies on the prefiled evidence attached as Schedules A and B. 11

3. Persons affected by this Application are C-I-L and Union, whose addresses are as follows: 12

C-I-L Inc. 13
171 Queens Avenue
P.O. Box 5201
LONDON, Ontario
N6A 4L6

and 14

Union Gas Limited 15
50 Keil Drive North
P.O. Box 2001
CHATHAM, Ontario
N7M 5M1

DATED at Toronto this 12th day of December, 1988. 16
<signed>
PATRICIA D. JACKSON and
MICHAEL A. PENNY of
TORY, TORY, DesLAURIERS
& BINNINGTON,
Counsel to C-I-L Inc.

Was Page 3. See Image [OEB:11L2C-0:3]

Communications relating to this Application should be directed to: 17

TORY, TORY, DesLAURIERS 18
& BINNINGTON
IBM Tower, 31st Floor
P.O. Box 270
Toronto-Dominion Centre
TORONTO, Ontario
M5K 1N2

ATTENTION: PATRICIA D. JACKSON 19

AND TO: C-I-L INC. 20
171 Queens Avenue
P.O. Box 5201
LONDON, Ontario
N6A 4L6

ATTENTION: C.W.W. DARLING 21

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SCHEDULE A 22
PRE-FILED EVIDENCE OF C-I-L INC.

THE PURPOSE OF THE APPLICATION 23

The purpose of this Application is to obtain approval by the Ontario Energy Board (the "Board") of: 24

(a) a by-pass competitive rate for the supply of transportation and storage service of natural gas by Union Gas Limited ("Union") to C-I-L Inc. ("C-I-L"); and 25

(b) the parties, the term and the storage of the associated storage agreement. 26

In its Reasons for Decision of December 12, 1986 concerning By-pass, the Ontario Energy Board (the "Board") stated (at paragraph 10.2 on p. 121): 27

The OEB is in the best position to properly balance the competing interests in regard to By-pass. By-pass is primarily a financial and economic problem with rate making implications and rate making solutions must be considered as potential alternatives to ensure that the public interest is fully protected. (Emphasis added.) 28

In its Reasons for Decision in E.B.R.O. 410-II, 411-II, 412-II, the Board stated (at paragraph 3.66 on p. 29

3/27):

The Board in its By-pass decision recognized the need to design rates to address the potential for By-pass. 30
The flexibility needed to compete with a credible by-pass

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application may be provided through the application of value of service criteria or through the incorporation of distance factors in rate design. Such flexibility would introduce the potential for discrimination, but depending on the circumstances, it may not be considered undue. 31

C-I-L advances the following reasons as the basis upon which it asks the Board to approve the by-pass competitive rates set forth in this Application. These are: 32

* The cost to C-I-L of by-passing the Union system is substantially below the current costs of remaining on the system. If the cost disparity persists, C-I-L will have no alternative but to proceed to by-pass. 33

* The rates proposed will ensure that C-I-L does not by-pass. 34

* The rates proposed are in excess of the costs of serving C-I-L. 35

* The rates are therefore in the public interest. 36

* Union is in agreement with the terms, conditions and rates proposed in this Application. 37

BACKGROUND 38

C-I-L has been in the business of manufacturing explosives and chemicals since 1862. Its largest and most capital intensive business is Agriculture, headquartered in London, Ontario. Agriculture has two ammonia plants with a total capacity of 2,300 tonnes per day, located at Lambton works near Courtright, Ontario. The plants are served by a 2.7 km pipeline from the TransCanada PipeLines Limited ("TCPL") system. The first plant started up in 1967, and the second in August of 1985. 39

Was Page 3. See Image [OEB:11L2C-0:6]

During the period April 1, 1988 to March 31, 1989, C-I-L forecasts it will consume 607,000 10(3)m(3) of natural gas, making it one of the two largest consumers of natural gas on the Union system. 40

Until November 1, 1987, C-I-L purchased its natural gas requirements from Union. Since January of 1986, these purchases were made pursuant to a series of competitive marketing program agreements among C-I-L, Union and TCPL. 41

On November 1, 1987, C-I-L began taking storage and transportation service under a contract carriage service contract with Union, dated October 7, 1987. 42

43

On May 26, 1987, in anticipation of the commencement of T-Service, C-I-L applied to the Board for an Order providing for certain terms and conditions, including rates related to the provision of storage and transportation service by Union to C-I-L (E.B.R.O. 437 and E.B.O. 139). On September 15, 1987, the Board issued final Reasons for Decision disposing of C-I-L's application. The terms of that Decision were subsequently incorporated in a Board Order of October 21, 1987.

44

C-I-L is currently operating under a Carriage Service Contract dated October 14, 1988 which incorporates the applicable provisions of the Board's February 26, 1988 order and the T-1 rates approved in E.B.R.O. 412-III and designated by Board Order of October 26, 1988 as "Interim Rates". The contract provides, among other things, for:

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(a) delivery by C-I-L of 1,600 10(3)m(3) of gas per day to Union at Trafalgar, plus additional amounts if authorized by Union;

46

(b) utilization by C-I-L of up to 80,000 10(3)m(3) of storage space;

47

(c) injection and withdrawal of up to 650 10(3)m(3) of gas per day to/from storage, which amounts may be increased if authorized by Union;

48

(d) redelivery to C-I-L of up to 1,900 10(3)m(3) per day of gas on a firm basis and up to 200 10(3)m(3) per day of gas on an interruptible basis, yielding a total Daily Contracted demand of 2,100 10(3)m(3) per day, which amount may be increased if authorized by Union; and

49

(e) unbundled rates for delivery and storage services consisting of demand charges and commodity charges as set forth in the contract.

50

At an annual consumption of 607 10(6)m(3), the total T-1 storage and transportation rates currently paid by C-I-L are $9.83/10(3)m(3) or $5.97 million annually. On the basis of the rates proposed by Union in E.B.R.O. 456, C-I-L would pay $9.33/10(3)m(3) or $5.66 million annually.

51

INCENTIVES TO BY-PASS

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As this Board has noted (in the Feedstock hearing, E.B.R.L.G. 26), natural gas is the only economically feasible feedstock for the production of ammonia in North America, and the cost of natural gas is by far the largest single component in the production of ammonia. The Board has also concluded that the profitability of the ammonia industry is closely related to the cost of natural gas. A substantial component of that cost to C-I-L is currently represented by the amount paid for transportation service on the Union system. At current volumes, the annual cost is $5.97 million.

Was Page 5. See Image [OEB:11L2C-0:8]

53

It is vital to the success of C-I-L's Agriculture Business with continued operation of two ammonia production units operating at or near full capacity, to do everything in its power to improve the competitiveness of its gas costs. In this connection, C-I-L has considered alternatives to the current provision of transportation service by Union. At this point, the practical alternative, offering major savings, would be to build a by-pass pipeline to the TCPL line.

C-I-L has, with the cooperation of Union and TCPL, analyzed the costs of construction and operation of such a by-pass pipeline. Those costs are discussed below. 54

I. THE BY-PASS OPTION 55

If C-I-L were to by-pass the Union system, C-I-L anticipates that it would operate in the following manner: 56

(a) C-I-L would build a pipeline from Lambton works to the TCPL system. The pipeline would be no longer than the current 2.7 km pipeline which serves C-I-L, and could be routed more directly to be shorter. The pipeline would be built entirely on land owned by C-I-L. 57

Was Page 6. See Image [OEB:11L2C-0:9]

(b) C-I-L would contract for firm space on the TCPL system to deliver gas on a daily basis to meet the planned requirements, taking into account the expected level of operation of the two ammonia units, the internal consumption and external sales of ammonia, and the inventory levels and flexibility for ammonia and derivative products. C-I-L's current demand on the Union system is 2,100 10(3)m(3)/day. In a by-pass operation, C-I-L would expect to operate at a somewhat lower demand, to minimize the risk of TCPL unabsorbed demand charges. C-I-L and Union agree that the likelihood is that C-I-L would contract for firm service on the TCPL system at 2,000 10(3)m(3)/day. 58

(c) C-I-L would not have access to Union's storage facilities. 59

(d) On average, C-I-L would operate on the TCPL system at 95% load factor. The 95% level would be achieved by assigning space to others during periods when C-I-L had excess capacity brought about by predictable events, such as scheduled maintenance and/or market related shut downs of one of its plants. C-I-L's experience since it has been on direct purchase is that the arrangement of assignments has become routine, with minimal effort on behalf of C-I-L personnel. 60

(e) C-I-L would incur, on average, unabsorbed demand charges with respect to the 5% of C-I-L's firm space on TCPL. This assumes that on average, C-I-L would be unable to transport 36,500 10(3)m(3) (5% of 2,000 x 365) of gas because of unplanned downturns or shutdowns (the "Unplanned Shutdown Gas"), and that the associated space could not be assigned on short notice. This is 61

Was Page 7. See Image [OEB:11L2C-0:10]

equivalent to one plant experiencing 36.5 days of unplanned shutdown. In recent years, unplanned shutdowns have averaged 9 plant/days per year per plant. Of these, less than half ocurred <occurred> leaving insufficient notice to have effected assignments. On the basis of historical experience, therefore, it is likely that C-I-L could operate at higher than 95% load factor, and that unabsorbed demand charges would be less than is here assumed. 62

(f) C-I-L will operate on a day-to-day basis within the volume tolerance (ñ2%) currently imposed in the TCPL tolls. 63

Cost to C-I-L of the By-Pass option 64

Union has calculated the annual cost of the construction and operation of the by-pass pipeline at $537,300. C-I-L has reviewed these calculations and, for the purposes of this Application alone, is prepared to accept Union's calculations of this cost. The details of the calculation are set forth in a letter from Union to C-I-L which is attached as Appendix 1. 65

C-I-L is of the view, however, that certain of the assumptions made by Union result in a calculation of cost which is greater than the actual cost to C-I-L were it to build this 2.7 km pipeline. For example, Union's calculations assume a "rate of return" of 12.58%. C-I-L's actual cost of capital (the functional equivalent of Union's rate of return) would, in fact, be lower than 12.58%. 66

Was Page 8. See Image [OEB:11L2C-0:11]

In addition, under a by-pass mode of operation, C-I-L would expect to incur $927,611 annually in unabsorbed demand charges, calculated as follows: 67

68

The total annual cost of the by-pass option would therefore be $537,300 + 927,611 = $1,464,911. 69

II. BY-PASS COMPETITIVE RATES AND SERVICES 70

As set forth in Schedule B (the "Agreement") and subject to necessary Board approvals, C-I-L and Union have agreed upon a package of storage and transportation services, and associated rates, which, if approved, would result in C-I-L remaining on the Union system. 71

The basic package of services agreed upon follows. Union would provide: 72

(a) Transportation services to C-I-L at the current volume levels. This would be a substitute for the construction of a by-pass pipeline; 73

(b) 15,000 10(3)m(3) of storage space (the "Primary Storage Space") which the parties agree would be sufficient under the by-pass option to enable C-I-L to operate at 100% load factor on the TCPL system (by enabling C-I-L 74

Was Page 9. See Image [OEB:11L2C-0:12]

to move up to 36,500 10(3)m(3) of gas - the Unplanned Shutdown Gas - in and out of storage as needed); 75

(c) 23,000 10(3)m(3) of additional storage space (the "Secondary Storage Space") which under the by-pass option would allow C-I-L to close one plant down for planned maintenance of about 3 weeks without having to arrange the assignment of associated unused transportation space. (The space would be used to transport approximately 3 weeks of gas supply - the "Maintenance Volume of Gas" - for one plant into storage, for later use.); and 76

(d) Injection into and withdrawal from storage of 59,500 10(3)m(3) of gas annually (the annual total of the "Unplanned Shutdown Gas" and the "Maintenance Volume of Gas"). 77

(e) The Agreement also contemplates the possibility of additional storage, injection or withdrawal services being provided on terms and rates set forth in the Agreement. 78

The rate which Union and C-I-L have agreed upon for this basic package of services in items (a) to (e) above is made up of a number of components: 79

(a) For the transportation service, the amount of $537,300, being equal to the annual cost to C-I-L of constructing and operating a 2.7 km by-pass pipeline. 80

(b) For the Primary and Secondary Storage Space, and injection and withdrawal of 59,500 10(3)m(3) annually, an 81

Was Page 10. See Image [OEB:11L2C-0:13]

amount equal to the TCPL demand charges associated with transportation of 59,500 10(3)m(3) of gas. At TCPL tolls in effect from January 1, 1989, this amount is $1,512,135. 82

The Primary Storage Space would enable C-I-L to avoid unabsorbed demand charges associated with the transportation of the Unplanned Shutdown Gas of 36,500 10(3)m(3) annually. 83

In the absence of the Secondary Storage Space, C-I-L would not expect to incur unabsorbed demand charges in connection with transportation of 23,000 10(3)m(3) of gas, since it would expect to assign that transportation capacity, as described above. This element of the proposed rate is in excess of the cost of C-I-L's competitive alternative. However, C-I-L has agreed to pay a rate somewhat in excess of the cost of its competitive alternative as a term of remaining on the Union system. 84

(c) A minimum annual premium which is the greater of $200,000 or 15% of the "annual facilities cost". The annual facilities cost is: the sum of the cost in a) above plus the TCPL demand charges associated with the volume of Primary and Secondary Storage Space. As of January 1, 1989, the annual cost, therefore, is $537,300 + $965,733 = $1,503,033. The premium as of January 1, 1989 is thus $225,455. This portion of the rate is entirely in excess of the cost of C-I-L's competitive alternative, which C-I-L has agreed to pay this premium as a term of remaining in the Union system. 85

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At current TCPL tolls, the annual rate which results from these elements is $2,274,890. It would be paid 86 in 12 monthly installments of $189,574. The parties have agreed that this rate (subject to adjustment according to TCPL toll charges) will remain in effect for the first 3 years of the Agreement. Thereafter, there is a mechanism to adjust the rate if there are changes in the volume of gas to be transported under the Agreement.

III. UNION'S COST OF SERVICE 87

Union and C-I-L agree that the proposed rate exceeds Union's cost of providing the services. 88

(a) Transportation Costs 89

The new pipeline built by Union in 1985 has the capacity to deliver all of C-I-L's requirements. The capital cost of that pipeline to Union (net of C-I-L's contribution and the TCPL "tap") was $1,179,000. Even using the current estimated cost of the TCPL tap and current assumptions about operations and maintenance, etc. (Appendix 1), and applying Union's current approved rate of return on capital (12.58%), after adjustment for taxes, the annual cost of that pipeline to Union is approximately $476,150 calculated as follows: 90

91

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The current annual cost to C-I-L is calculated to be $537,300 from a $2.31 million capital expenditure. In like proportion, therefore, Union's annual cost, assuming a $2.118 million expenditure, would be no more than $476,150. 92

Accordingly, the transportation element of the rate alone ($537,300) exceeds the cost of service, even before allowing for the additional premium element of the rate. 93

(b) Storage Costs 94

T-1 storage rates are set at a level which allows Union its costs of service and allowed rate of return. 95

Under current T-1 rates, C-I-L would pay $485,500 for the storage services described in this application. 96

Under the T-1 rates proposed in E.B.R.O. 456, C-I-L would pay $682,400. 97

Clearly, then, the storage component of the rate $1,512,135 exceeds the cost of providing the storage services. 98

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APPENDIX 1 99

1988-12-07 100

TELECOPY 101

C-I-L Inc. 171 Queen's Avenue LONDON, ON N6A 4L6 102

Attention: Mr. C.W.W. Darling Energy Planning Manager 103

Dear Mr. Darling: 104

Re: Constructing Transportation Facilities from the TCPL Station at Courtright to the C-I-L Plant 105

Union has calculated an annual cost of service for the above mentioned facilities of $537,000 per year for a seven (7) year contract. 106

The following assumptions were made in calculating the annual cost of this service: 107

(a) Rate of Return on rate base is equal to Union's current approved rate of 12.58*. 108

(b) Income taxes do not reflect tax reform. 109

(c) Estimated property taxes at $3,225 per year for the pipeline. 110

(d) Depreciated the facilities over a 20 year project life with no residual value at the end of 20 years. 111

(e) Indirect costs associated with operating and maintaining a pipeline and customer station, meter reading, customer billing, customer service, and gas control are estimated at $100,000 per year. 112

(f) A level cost of service for the contract term has been calculated such that the present value of the levelized payments is equal to the present value of the annual cost of service discounted at Union's approved pre-tax rate of return of 19.143%. 113

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(g) The commodity rate for transportation to C-I-L is equal to unaccounted for gas at the system average rate valued at Union's WACOG, and a premium to reflect the benefit to C-I-L of Union owning and operating the pipeline. 114

Attached is an illustration of the estimated cost of service for the aforesaid pipeline and related facilities. It was derived from the following costs: 115

116

Yours truly, 117
UNION GAS LIMITED

<signed> 118
M.W. Brodie, P. Eng.
Manager
Major Industrial Markets

MWS/cp attach. 119

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120