

**2001 Application to acquire the Support Structure of Aliant Telecom Inc.  
located in the Applicant's service territory, Direct Evidence and Exhibits**

**IN THE MATTER OF** the *Public Utilities Act*, (the “Act”); and

**IN THE MATTER OF** an application by Newfoundland Power Inc., (“Newfoundland Power”) for an Order pursuant to Sections 41 and 53 of the Act, and all other enabling powers:

- (a) for approval of the purchase by Newfoundland Power of certain additions to its property and assets; and
- (b) for approval of an agreement concerning the terms and conditions upon which Aliant Telecom Inc. (“Aliant”) shall jointly use certain facilities of Newfoundland Power.

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**Direct Evidence and Exhibits of  
Newfoundland Power Inc.**

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**Direct Evidence of Newfoundland Power Inc.**

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## *Introduction*

Newfoundland Power Inc. ("Newfoundland Power") is applying to the Board of Commissioners of Public Utilities (the "Board") for approval to acquire all of the utility poles and related assets (the "Support Structures") of Aliant Telecom Inc. ("Aliant") which are located in Newfoundland Power's service territory.

The proposed acquisition will streamline the longstanding practice of joint use of Support Structures by electric, telecommunications and community antennae television ("CATV") companies in Newfoundland. This longstanding practice provides substantial benefit to consumers of all services, including electric service.

Single ownership of the Support Structures in Newfoundland Power's service territory will permit economies of scale in the design, construction, operation and maintenance of Support Structures. The acquisition is beneficial to both Newfoundland Power and its customers. It will contribute to more stable electricity rates for Newfoundland Power's customers into the future.

Newfoundland Power and Aliant have entered into a Support Structures Purchase Agreement (the "Purchase Agreement"), and intend to enter into a Facilities Partnership Agreement ("the Facilities Agreement"), both as of January 1, 2001.

The Purchase Agreement provides that Newfoundland Power will purchase 101,875 Support Structures from Aliant.<sup>1</sup> The Purchase Agreement further provides that Newfoundland Power will pay Aliant the amount of \$45.9 million over a five-year period, which represents the net book value of the Support Structures. Following completion of the purchase in 2005, Newfoundland Power's total joint use revenues are forecast to be \$9.2 million.

The Facilities Agreement is based on the existing Joint Use Agreement between Newfoundland Power and Aliant. It will govern the ongoing relationship between the parties with respect to the Support Structures. Newfoundland Power will become the owner of the Support Structures and assume responsibility for the design, construction, operation and maintenance of the Support Structures.

Joint use costs are common costs currently borne 60% by Newfoundland Power and 40% by Aliant. The new arrangements between the utilities are intended to share the joint use costs in approximately the same ratio. However, the design, construction and management of joint use Support Structures will now proceed in a more efficient manner through single ownership and management of Support Structures, resulting in benefits from more efficient operations for both utilities. When viewed from this perspective, the acquisition proposed by this application is an

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<sup>1</sup> Pursuant to the Purchase Agreement, Newfoundland Power has assigned its rights to the Support Structures outside Newfoundland Power's service territory to 11003 Newfoundland Inc. The purchase price payable by Newfoundland Power to Aliant has been reduced to \$45.9 million because of the exclusion of the Support Structures outside of Newfoundland Power's service territory. The Purchase Agreement referred to throughout this report is the agreement as modified by the assignment to 11003 Newfoundland Inc.

1 evolutionary rather than revolutionary development in the efficient management of a basic  
2 component of utility infrastructure.

3  
4 In this Application, Newfoundland Power specifically requests an Order of the Board approving  
5 the Purchase Agreement, the Facilities Agreement and the additional supplementary capital  
6 expenditures for 2001 that are related to this acquisition.

## 7 8 ***Background***

### 9 10 *Support Structures*

11  
12 Support Structures are comprised of poles and devices used to provide mechanical support to  
13 poles. These devices, known as anchors and guys, provide support against the tension created by  
14 installing electric or telecommunications equipment on the poles. Exhibit 1 is a general  
15 description and explanation of the basic operation of Support Structures.

16  
17 A Support Structure in Newfoundland Power's service territory typically includes an electrical  
18 utility space at the top and a communications space located lower on the pole. The electrical  
19 utility space contains the electrical equipment such as transformers and power lines, while the  
20 communications space contains telecommunications and CATV attachments such as coaxial and  
21 fibre optic cables. Electrical equipment is located at the top of the pole for safety reasons. This  
22 maximizes clearance available for electrical power lines to avoid contact with people, ladders  
23 and trucks. The location of the communications space lower on the pole avoids the risk of  
24 communication workers coming in contact with electrical power lines.

25  
26 Exhibit 2, page 1 of 2, contains details of total distribution pole ownership in Newfoundland  
27 Power's service territory as at December 31, 2000. Exhibit 2, page 2 of 2, contains similar  
28 details for joint use as at December 31, 2000.

### 29 30 *Joint Use of Support Structures*

31  
32 Both Newfoundland Power and Aliant require Support Structures to provide services to their  
33 customers. It does not make practical sense to have both utilities construct and maintain separate  
34 pole lines when the utilities can share Support Structures. If both utilities were to maintain  
35 separate Support Structures, costs would be duplicated and customers of both utilities would bear  
36 unnecessary expense.

37  
38 The sharing of Support Structures is a common practice for electric and telecommunications  
39 utilities and is referred to as joint use. Newfoundland Power and Aliant have long recognized  
40 the benefits of joint use and have historically cooperated in the provision of Support Structures to  
41 avoid unnecessary duplication. Costs for the design, engineering, and installation of Support  
42 Structures are divided between the utilities. The ongoing costs for the maintenance and  
43 operation of Support Structures are also divided.

44  
45 A brief history of joint use of Support Structures between Newfoundland Power and Aliant is  
46 described in Exhibit 3.

1  
2 The legislature has also recognized the benefits of the joint use of Support Structures. Section 53  
3 of the *Public Utilities Act* contains a statutory obligation for utilities to cooperate with respect to  
4 Support Structures. There is a statutory obligation for public utilities to provide access to their  
5 Support Structures to other public utilities for reasonable compensation where public  
6 convenience and necessity requires and substantial detriment will not result.  
7

8 In Newfoundland Power's service territory, Newfoundland Power and Aliant own both joint use  
9 poles and non-joint use poles. Joint use poles are used by both Newfoundland Power and Aliant  
10 while non-joint use poles are used by only one utility. CATV operators do not own joint use  
11 Support Structures in Newfoundland. Collectively, CATV operators have approximately  
12 125,000 attachments on both joint use and non-joint use poles owned by Newfoundland Power  
13 and Aliant in Newfoundland Power's service territory.  
14

15 On a typical joint use Support Structure, most of the space is allocated for electrical service.  
16 Electrical utilities require more space on Support Structures because of the amount of equipment  
17 required for electrical distribution and for safety reasons. The 60% electric - 40%  
18 telecommunications ratio represents a reasonable allocation of common costs between the  
19 utilities that has been accepted for many years in Newfoundland.  
20

21 The existing Joint Use Agreement requires Newfoundland Power to own and maintain 60% of  
22 the joint use poles and Aliant to own 40% of the joint use poles. By maintaining the ownership  
23 ratio of the joint use poles at the same ratio as the allocation of costs (60% - 40%), each utility  
24 can use the joint use poles of the other without the need for inter company financial transfers.  
25 Currently, Newfoundland Power owns 61.2% of joint use poles and Aliant owns 38.8% of joint  
26 use poles in Newfoundland Power's service territory.  
27

28 Pursuant to this acquisition, Newfoundland Power will acquire Aliant's joint use poles together  
29 with Aliant's non-joint use poles in Newfoundland Power's service territory. Newfoundland  
30 Power will then own all Support Structures in Newfoundland Power's service territory. This  
31 represents the next step in the development of joint use in Newfoundland Power's service  
32 territory. It will enable Newfoundland Power to capitalize on the economies of scale to ensure  
33 support structure services can be provided by the most efficient means possible.  
34

### 35 *Canadian Practice* 36

37 Exhibit 4 is the result of a survey of Canadian joint use practices.  
38

39 The proposed arrangement, where Newfoundland Power will own all Support Structures in its  
40 service territory, is consistent with that experienced by 7 of the 12 electric utilities which  
41 responded to the survey. The remaining 5 respondents have joint use arrangements more  
42 consistent with Newfoundland Power's current arrangements.  
43

1    ***The Agreements***

2  
3    ***The Purchase Agreement***

4  
5    Pursuant to the terms of the Purchase Agreement, Newfoundland Power has agreed to purchase  
6    the Support Structures and other real property interests in connection with the Support Structures  
7    owned by Aliant (the "Purchased Assets").

8  
9    The aggregate purchase price to be paid by Newfoundland Power to Aliant for the Purchased  
10   Assets within Newfoundland Power's service territory is \$45.9 million, payable over 5 years  
11   from 2001. Exhibit 5 provides detail of the purchase over the 5-year period.

12  
13   The purchase price is the net book value of the Purchased Assets as at December 31, 2000.  
14   Exhibit 6 provides detail of the net book value of assets being acquired. The net book value is  
15   the remaining undepreciated book value of the assets. Acquisition at net book value ensures that  
16   current common cost recovery ratio of 60% - 40% for joint use Support Structures is maintained.  
17   Transfers of Support Structures between Newfoundland Power and Aliant pursuant to current  
18   joint use arrangements, as approved by the Board, have taken place at net book value.

19  
20   The Support Structures being acquired are located throughout Newfoundland Power's service  
21   territory and are an integral part of the interconnected system of Support Structures through the  
22   service territory. Exhibit 7 is a list of communities in which Support Structures being acquired  
23   are located.

24  
25   The Purchased Assets are being acquired over a five-year period to ease cash flow requirements  
26   with respect to the acquisition.

27  
28   ***The Facilities Agreement***

29  
30   The Facilities Agreement provides that Newfoundland Power will be the owner and operator of  
31   all existing and future Support Structures required by Newfoundland Power and Aliant. By  
32   vesting the responsibility for Support Structures with Newfoundland Power, duplication of effort  
33   can be reduced and the distribution system can be planned, constructed and maintained more  
34   efficiently.

35  
36   Aliant will have unrestricted access to the Support Structures so long as it is not detrimental to  
37   Newfoundland Power's provision of service to its customers. Aliant will pay Newfoundland  
38   Power reasonable compensation for the use of the Support Structures.

39  
40   The Facilities Agreement is based upon prior and current joint use arrangements between  
41   Newfoundland Power and Aliant and builds upon these cooperative arrangements. It will replace  
42   the current Joint Use Agreement and the current Pole Ownership Agreement between  
43   Newfoundland Power and Aliant. The Facilities Agreement mandates that Newfoundland Power  
44   and Aliant continue to work together on the planning and design of Support Structures to the  
45   economic advantage of their respective customers.



1 The annual rental rate payable by Aliant to Newfoundland Power is \$32 for each pole on which  
2 Aliant has attachments. Aliant will also pay a capital contribution of \$510 for each non-joint use  
3 pole it requires. These amounts have been agreed upon between the parties and are reasonable.  
4 They are based on existing responsibility for common pole costs on a 60% - 40% ratio. They are  
5 sufficient to cover all costs to Newfoundland Power arising from the acquisition, including the  
6 cost of capital. Accordingly, the cash flows created by these charges will contribute to more  
7 stable electricity rates for electricity customers.

8  
9 The \$32 per pole annual charge and \$510 charge for each non-joint use pole will increase  
10 annually at ½ of inflation as measured by Gross Domestic Product Fixed Weight Price Index for  
11 Canada. Due to the high proportion of fixed cost involved in ownership and operation of  
12 Support Structures, annual increases at ½ of the rate of inflation are reasonable.

13  
14 Exhibit 8 is Newfoundland Power's revenue forecast from joint use of Support Structures for  
15 2001 through 2005, the final year in the acquisition schedule for the Aliant Support Structures.  
16 In 2005, total joint use revenues of Newfoundland Power will be approximately \$9.2 million.

17  
18 Exhibit 9 illustrates the forecast cost recovery of the Support Structures on a per pole basis. It  
19 also shows the derivation of the \$32 rental rate.

20  
21 The Facilities Agreement provides protection for Newfoundland Power and its customers  
22 through a number of mechanisms. First, if Aliant reduces the number of poles to which it is  
23 attached by 10,000, Newfoundland Power has the right to require Aliant to repurchase all  
24 Support Structures transferred pursuant to the proposed acquisition at net book value. Second, if  
25 at the end of the initial 10-year term, a renewal of the Facilities Agreement is not reached, Aliant  
26 is obligated to repurchase its share of the joint use poles and all of its non-joint use poles at net  
27 book value. Finally, if Aliant no longer requires a particular non-joint use pole, Aliant is  
28 required to repurchase the pole at net book value.

29  
30 In 2010, Newfoundland Power will either be receiving a compensatory stream of rental revenue  
31 from Aliant or will be able to divest itself of the poles that it is now purchasing from Aliant.  
32 This ensures that Newfoundland Power's customers will not be adversely impacted by currently  
33 unforeseeable material changes.

### 34 35 ***CATV Operators***

36  
37 Currently, CATV operators attach their lines within the communication space of poles owned by  
38 Newfoundland Power and Aliant. Each utility collects revenue from the CATV operators that  
39 are attached on their poles. Newfoundland Power charges \$14.04 per pole attachment annually  
40 based upon existing agreements with CATV operators. Aliant charges \$9.60 annually per pole  
41 attachment, an amount ordered by the CRTC. Exhibit 8 provides a forecast of revenue from  
42 CATV operators for the period 2001 through 2005.

43  
44 In the future, CATV operators will pay Newfoundland Power \$12.84 annually per attachment  
45 which represents a blend of the rate that the CATV operators currently pay Aliant and  
46 Newfoundland Power. In effect, the CATV television operators will pay the same amount that

1 they are currently paying. The difference is that there will be greater administrative simplicity as  
2 only one utility will now deal directly with CATV operators.

3  
4 The existing joint use arrangement between Newfoundland Power and Aliant requires that  
5 CATV revenue be shared. The sharing mechanism recognizes that Aliant should receive a larger  
6 share of CATV revenue since CATV attachment is in the communications space. It also  
7 recognizes that Newfoundland Power charges a higher fee. Currently, Aliant receives 62.5% of  
8 all CATV revenue up to the \$9.60 per pole and Newfoundland Power receives 62.5% of all  
9 amounts over \$9.60 per pole.

10  
11 In the future, Aliant will no longer receive any CATV revenue for attachments in Newfoundland  
12 Power's service territory.

13  
14 If in any year the amount received in CATV revenue is reduced by more than \$100,000 from the  
15 previous year, the compensation payable by Aliant under the Facilities Agreement will increase  
16 by 62.5% of the amount of the CATV revenue reduction in excess of \$50,000.

### 17 18 ***Operational Analysis***

#### 19 20 ***Operational Development***

21  
22 The goal of Newfoundland Power's acquisition of Aliant's Support Structures is to improve the  
23 overall efficiency of the provision of support structure services. Newfoundland Power and  
24 Aliant have made changes to their joint use relationship over the years with the intent of  
25 improving the efficiency of support structure services. For example, the companies have sought  
26 to improve efficiency by having a common pole contractor install the necessary Support  
27 Structures.

28  
29 The proposed acquisition reflects the operational reality that Newfoundland Power has the  
30 primary responsibility for Support Structures in its service territory. This, in turn, is largely a  
31 reflection of the nature of the services provided by the various users of the Support Structures.  
32 For example, in emergency conditions such as extreme weather which causes destruction to  
33 Support Structures, it is Newfoundland Power which leads restoration efforts. One reason for  
34 this is the extreme safety hazard presented by downed electricity wires. Another part of the  
35 reason relates to the fact that electric circuits do not function when wires are on the ground while  
36 telecommunications circuits do. Newfoundland Power's primary role in the operation and  
37 maintenance of Support Structures has historically been an integral part of joint use in  
38 Newfoundland.

39  
40 The proposed acquisition reflects the parties' intention that Newfoundland Power have exclusive  
41 responsibility for Support Structures. Newfoundland Power and Aliant have been moving in this  
42 direction for some time. Since 1998, Newfoundland Power has provided engineering design and  
43 support structure installation services to Aliant. In 2000, Newfoundland Power billed Aliant  
44 approximately \$600,000 for technical services related to construction projects that were valued at  
45 approximately \$4 million.

1     *Efficiency Improvement*

2  
3     There is room for further efficiency improvement with respect to joint use.

4  
5     If a support structure is required in a municipality, then both Newfoundland Power and Aliant  
6     separately have to seek municipal approval. Both utilities also have to make contact with CATV  
7     operators. Staff and resources of both utilities are required to manage the existing joint use  
8     arrangements with respect to the pole ownership ratio and other pole data.

9  
10    Circumstances currently exist where Newfoundland Power will construct a pole line and place its  
11    equipment on the poles. Aliant will later place the steel strand for its telecommunications cable  
12    on the poles. This can result in a loosening of the guys supporting the pole line necessitating a  
13    return visit by Newfoundland Power personnel. By having exclusive responsibility for Support  
14    Structures, Newfoundland Power personnel will, in the future, be able to minimize such repeated  
15    site visits.

16  
17    Many of the operating benefits arising from this acquisition are difficult to quantify. However, it  
18    is obvious that there will be greater efficiency from the elimination of duplicated administrative  
19    services and from single ownership, construction and maintenance of pole lines. This will result  
20    in the mutual benefit to customers of both utilities.

21  
22    Newfoundland Power will not need to hire additional staff as a result of the support structure  
23    acquisition. Newfoundland Power's existing technicians will carry out all pole line design work  
24    for both Newfoundland Power and Aliant. In effect, this will result in the more efficient use of  
25    existing Newfoundland Power personnel. Newfoundland Power's customers will benefit from  
26    the increased efficiency utilization of Newfoundland Power's resources.

27  
28     *Non-Joint Use Poles*

29  
30    To increase the economies of scale that will result from single ownership of the Support  
31    Structures, the non-joint use poles currently owned by Aliant are included in the acquisition. It is  
32    not efficient for Aliant to continue to own the approximately 30,000 non-joint use poles. Aliant  
33    would need to maintain a substantial amount of the infrastructure and support services that it  
34    currently uses, but such infrastructure and services would be applied to a vastly reduced and  
35    relatively small pole population. By reducing Aliant's potential savings in this way, Aliant's  
36    ability to pay rentals at a level that will provide Newfoundland Power's customers benefits into  
37    the future is limited. The goal of improving efficiency by allowing the parties to capture the  
38    economies of scale of single pole ownership will only be realized if all Support Structures are  
39    included.

40  
41     *Financial Analysis*

42  
43    Based on Newfoundland Power's financial analysis, the acquisition will be beneficial for  
44    Newfoundland Power's customers.

45  
46    Exhibit 10 contains the economic analyses performed by Newfoundland Power.

### *Rate Impact Analysis*

The rate impact analysis contained in Exhibit 10 shows the impact of the acquisition on Newfoundland Power's revenue requirement which impacts electricity rates charged to customers. There is a surplus of revenue over expenses in each year in the 10 year period considered. This indicates that there is sufficient revenue received from Aliant and the CATV operators to cover all incremental costs of this acquisition. A 10-year timeframe is appropriate as the financial parameters can be reasonably determined for that period. After that timeframe the structure and terms of the agreement will be subject to renegotiation and the financial parameters may therefore be subject to change.

### *Cash Flow Analysis*

A traditional net present value analysis is designed to estimate the value of an investment today considering its expected cash flows. It compares cash flows that occur in different time periods. It is commonly used in corporate finance as a tool in evaluating investment decisions. The Board has recognized the importance of a net present value analysis and ordered in Order P.U. 6 (1991) that Newfoundland Power perform a net present value analysis for any material acquisition.

The purchase price of \$45.9 million represents a significant cash outflow to Newfoundland Power. In order to minimize the impacts on the company's cash flow in any given year, the agreement has been structured to provide for payment of the \$45.9 million over a 5-year period starting in 2001.

The net present value analysis produces a positive net present value amount of approximately \$1.6 million. This illustrates that the acquisition will yield a net benefit to Newfoundland Power's customers. From a net present value approach, this acquisition represents a sound investment decision by Newfoundland Power.

### *Board Approvals*

The acquisition of the Support Structures from Aliant will result in additions to Newfoundland Power's capital assets. The Board's approval pursuant to the *Public Utilities Act* is therefore required.

The Purchase Agreement provides for the payment for the Purchased Assets over a 5-year period commencing in 2001. The Facilities Agreement provides for joint use compensation and the possible repurchase of Support Structures by Aliant.

Schedule A to the Application outlines the incremental 2001 capital expenditures that will be required as a result of the acquisition. The incremental amounts have two components: (i) the portion of the purchase price of the assets payable to Aliant in 2001, and (ii) the incremental capital expenditures for pole line extensions and pole line reconstruction for 2001.

These incremental capital costs, both for the acquisition from Aliant and for new extensions and reconstructions, have been factored into the financial analysis referred to previously. The cost of

1 capital for such expenditures is one of the costs covered by the revenue generated. The financial  
2 analysis demonstrates a positive benefit to Newfoundland Power and its customers.

3  
4 For 2001, Newfoundland Power requires additional supplementary capital expenditure approval  
5 in the amount of \$26,245,000.

6  
7 ***Conclusion***

8  
9 This Application is requesting the Board's approval of the consolidation of Support Structure  
10 design, construction, ownership and maintenance within Newfoundland Power's service  
11 territory. The consolidation proposed:

- 12  
13 1. is a natural progression from current arrangements regarding joint use of Support  
14 Structures;  
15  
16 2. will permit greater economies of scale in the ongoing construction, operation and  
17 maintenance of Support Structures; and  
18  
19 3. will be beneficial to the customers of Newfoundland Power.  
20

**Newfoundland Power Inc.**  
**Distribution Poles: General Description**

A typical pole is 40 feet long and supports power conductors and communication cables. Poles come in varying lengths and widths to meet special requirements.

Exhibit 1, page 2 of 3 is a typical pole diagram.

An anchor is used to provide a pole with mechanical support against the tension created by the installation of power conductors and communication cables. Guys are the wires that connect the pole to the anchor and transfer tension from the pole to the anchor.

The primary conductor carries a higher voltage (4.2 kV to 25 kV) and is situated higher on the pole principally for safety reasons. The secondary conductor is lower voltage wires (120 v to 600 v) and provides electricity to customers.

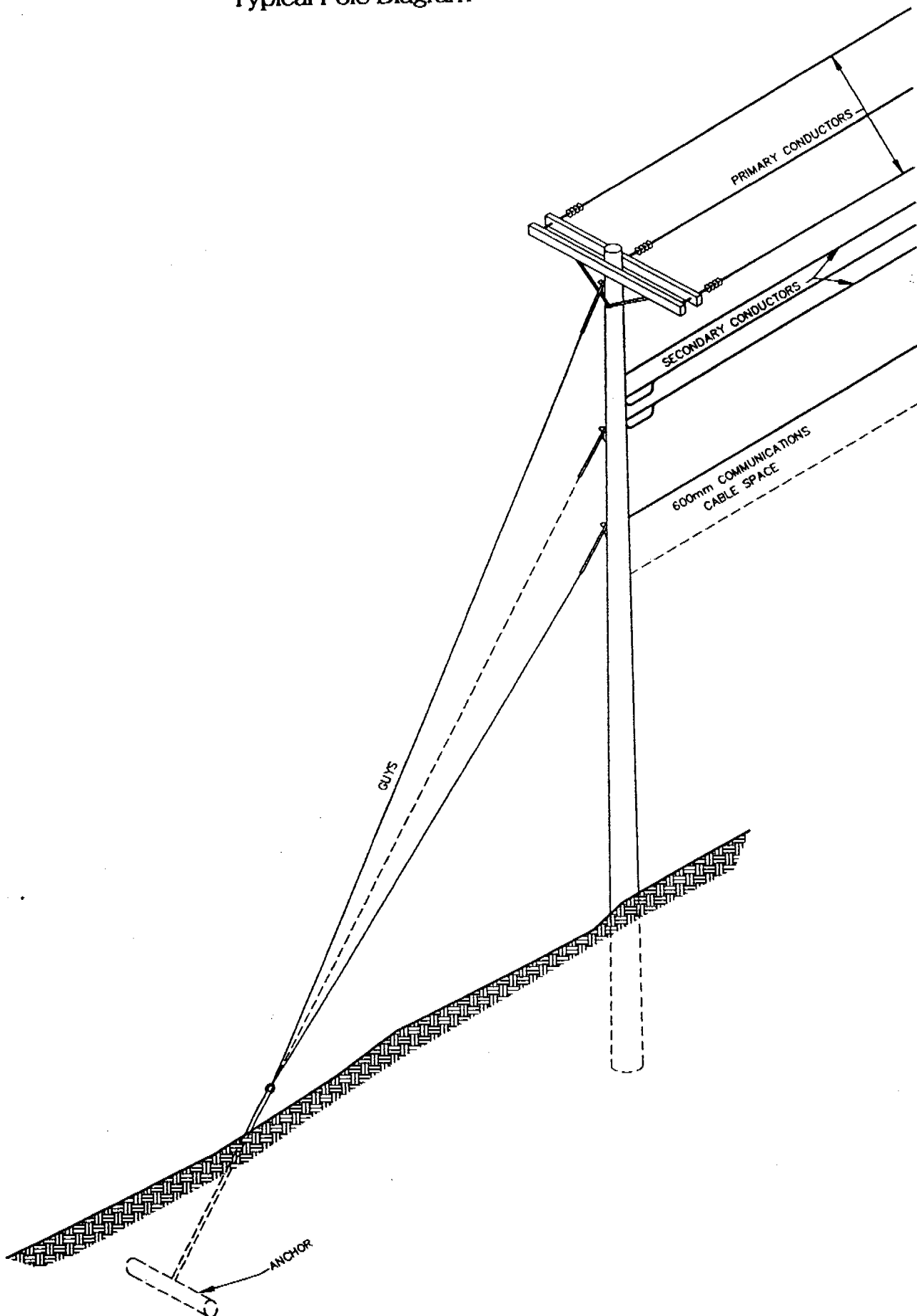
The communications space is located below the power conductors and is typically 2 feet (or 600 mm) in length. Within this communications space, both telephone company and the cable television attachments exist.

Exhibit 1, page 3 of 3, is a typical line diagram.

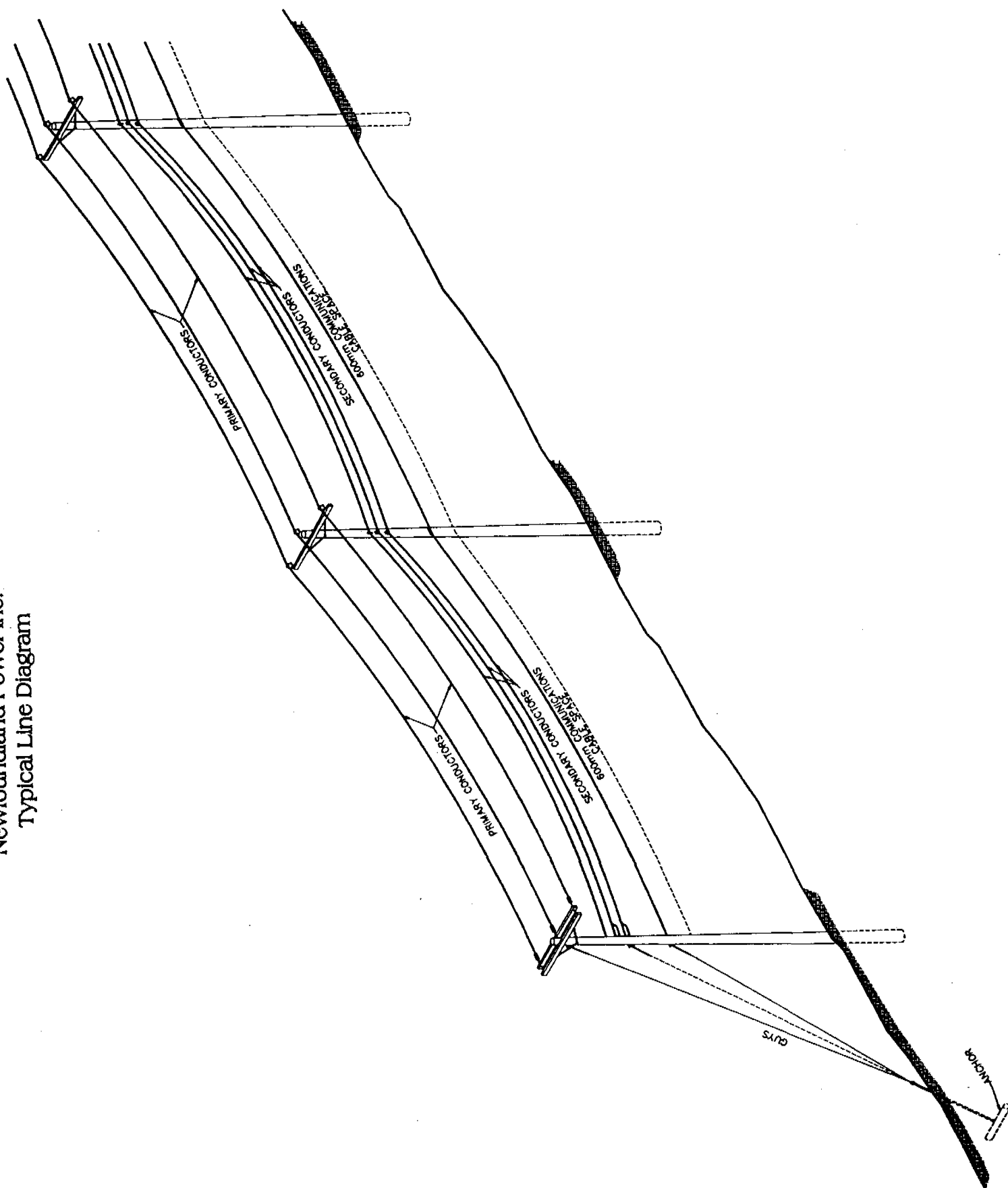
Primary conductors require sagging for both safety and reliability reasons. Maintaining appropriate sagging requires maintenance of appropriate mechanical tension for the line. Communications cable attachments can affect mechanical tension in two ways. One is related to the weight of the cable over the length of the line. The other is related to the tensions associated with the attachment of the steel strand to the pole itself.

While some communications cables are self-supporting, (i.e., they are directly attached to the communication space), the majority are attached to a steel cable, referred to as the strand, which, in turn, is attached to the pole. Attachment of a communication cable to the strand is referred to as "lashing".

Newfoundland Power Inc.  
Typical Pole Diagram



Newfoundland Power Inc.  
Typical Line Diagram





**Newfoundland Power Inc.**  
**Distribution Pole Detail**  
**Total Poles\***

<b>Owner</b>	<b>Number</b>	<b>Percentage</b>
Newfoundland Power Inc.	178,591	63.7%
Aliant Telecom Inc.	101,875	36.3%
<b>Total</b>	<b>280,466</b>	<b>100%</b>

\* As at December 31<sup>st</sup>, 2000.

**Newfoundland Power Inc.**  
**Distribution Pole Detail**  
**Joint Use Poles\***

<b>Owner</b>	<b>Number</b>	<b>Percentage</b>
Newfoundland Power Inc.	110,095	61.2%
Aliant Telecom Inc.	69,848	38.8%
<b>Total</b>	<b>179,943</b>	<b>100%</b>

\* As at December 31<sup>st</sup>, 2000

**Newfoundland Power Inc.**  
**Brief History of Joint Use**

***General***

When power and telephone services were first provided in the latter part of the 19<sup>th</sup> century, it was standard practice for electrical and telephone utilities to construct separate pole lines. These pole lines were often constructed along the sides of streets and roadways with the result of having an electrical power line on one side of the road and a telephone line on the opposite side of the road.

Early in the 20<sup>th</sup> century, it was recognized that these construction practices resulted in the duplication of facilities and unnecessary costs. There were also problems with line congestion and safety.

Initially, there were no formal agreements but a verbal understanding that the utilities would share costs and benefits equally. The question of equitable sharing was usually resolved by a 50/50 split meaning each party owned and maintained one half of the joint use poles. After telephone circuits were changed from wire to cable in the 1930s, the telephone utilities argued for a reduction in their share of the costs on the premise that they made less use of the poles.

During this time, there was little coordination of construction and each party operated independently. Power lines were generally constructed first and if communication circuits could be crowded on a pole, the telephone company attached without much discussion between the utilities. If space on the pole was not available, a separate pole line was constructed.

***Newfoundland***

Newfoundland Power's and Aliant's predecessor companies have been jointly using poles through a number of agreements since 1926.

In 1966, the first comprehensive joint use agreement was developed and executed by the utilities. The agreement covered the areas of St. John's, Grand Falls and Corner Brook and promoted joint use of pole lines, formalized procedures and conditions pertaining to joint use, and detailed rentals to be paid. Under this agreement, each party would construct and maintain ownership of its own pole lines but where possible, pole lines would be constructed to handle the attachments of both parties.

Subsequent to the 1966 agreement, two significant events occurred. First, the rural electrification program became very active. High growth rates for both electric and telephone utilities followed. There was an increased need for pole lines and many of the lines that were constructed were outside the scope of the formal 1966 agreement. This was followed by the

introduction of cable television in Newfoundland in 1977. This was significant in that it added a third party who required access to poles.

The joint use arrangement was renegotiated in 1979 to reflect these developments and to attempt to include all joint use poles in an agreement. At this time, the majority of poles were installed and owned by Newfoundland Power.

The joint use arrangement was renegotiated in 1988. The goal at this time was to increase Aliant's (then Newfoundland Telephone Company) ownership of joint use poles by 2% per year until it reached 40%. The 60-40% ratio is designed to reflect sharing of common pole costs.

The 1988 agreement also saw the introduction of standardized joint construction practices. Shortly after the 1988 agreement, Aliant (then Newfoundland Telephone Company) purchased Terra Nova Telecommunications and in 1989, the responsibility for the regulation of the telephone company moved from the Board of Commissioners of Public Utilities to the Canadian Radio and Telecommunications Commission.

The 1988 agreement was modified in 1994 primarily to include Terra Nova Telecommunications under the existing agreement. The 1988 agreement resolved a number of administrative issues and the relationship between the companies improved significantly. During this period of time, both companies focused on improving the overall efficiency of the joint use practices.

In 1998, Newfoundland Power and Aliant entered into a joint pole contract whereby a single contractor was hired to do the pole line construction work of both parties at a common price. Today, all pole construction work is contracted.

In 1999, Newfoundland Power began doing engineering work required for Aliant's pole lines. Presently, Newfoundland Power designs and constructs all joint use poles and most major non-joint use pole lines for Aliant.

The 1994 agreement was to have expired in 1999 but it has been extended pending the conclusion of this acquisition.

**Newfoundland Power Inc.  
Canadian Joint Use Survey Results**

**General**

Newfoundland Power has conducted a survey of the joint use arrangements between Canadian electric distribution utilities and telecommunications utilities. A total of 14 electric distribution utilities were surveyed. The table on page 2 of 2 contains the names of the 12 utilities that responded to the survey. Due to confidentiality concerns of some of the respondents, ranges and averages of the results of the survey are provided so as not to divulge specific information for any particular utility.

The results of the survey indicate that there are two basic types of joint use arrangements in use in Canada between electric utilities and telecommunications utilities. One type of arrangement is based upon joint ownership of poles. The other is based upon a simple rental model.

**Joint Ownership**

Five of the 12 respondents to the Newfoundland Power Survey reported participation in a joint use arrangement based upon joint ownership. This type of joint use arrangement is based on each utility owning a share of all poles jointly used by the two utilities, similar to the arrangement currently utilized by Newfoundland Power and Aliant Telecom. Under this arrangement each utility calculates its annual cost of pole ownership and determines the share of those costs to be allocated to the other utility on the basis of the ratio of pole ownership. The utilities will usually agree to the ratio of pole ownership that will achieve revenue neutrality and work toward maintaining that pole ownership ratio throughout the life of the joint use agreement. The table below illustrates that the pole ownership ratio for the electric utilities surveyed ranged from 57% to 61% with a corresponding range of 39% to 43% for the telecommunications utilities. The average ratio of pole ownership for the utilities surveyed is 60% for the electric utility and 40% for the telecommunications utility.

<b>Canadian Joint Use Survey Results Joint Ownership Agreements Pole Ownership Ratios</b>		
	<b>Electric Utility</b>	<b>Telecommunications Utility</b>
<b>Range</b>	57% to 61%	39% to 43%
<b>Average</b>	60%	40%

## Pole Rental

Seven of the 12 respondents to the Newfoundland Power Survey reported participation in a joint use arrangement based principally on pole rentals.

This type of joint use arrangement involves a monthly attachment fee per pole. This type of arrangement is used when the electric utility owns predominantly all the jointly used poles in its service territory. The attachment fee is usually derived from a negotiated or regulated allocation of the capital and operating costs associated with the pole on the basis of the portion of the pole being utilized by party attaching to the pole. The table below illustrates the average annual attachment fees for the utilities surveyed to be \$15.63, with a range of fees from \$6.42 to \$36.00.

<b>Canadian Joint Use Survey Results</b>	
<b>Pole Rental Agreements</b>	
<b>Annual Attachment Fees</b>	<b>Annual Attachment Fee</b>
<b>Range</b>	<b>Attachment Fee</b> \$6.42 to \$36.00
<b>Average</b>	\$15.63

The following electric utilities participated in the survey.

Nova Scotia Power Incorporated  
Maritime Electric Company Limited  
New Brunswick Power Commission  
Hydro Quebec  
Toronto Hydro  
Manitoba Hydro-Electric Board  
Saskatchewan Power Corporation  
Utilicorp Networks Canada (formally TransAlta distribution assets)  
Canadian Utilities Limited (formally Alberta Power)  
ENMAX Corporation (formally Calgary Power)  
West Kootenay Power Ltd.  
BC Hydro

**Newfoundland Power Inc.**  
**Purchase Detail**

<b>Payment Date</b>	<b>Percentage</b>	<b>Poles</b>	<b>Amount (\$000s)</b>
Closing Date	50%	34,923	20,220
January 1, 2002	20%	13,970	8,088
January 1, 2003	10%	6,985	4,404
January 1, 2004	10%	6,985	4,044
January 1, 2005	10%	6,985	4,044
<b>Total</b>	<b>100%</b>	<b>69,848</b>	<b>40,440*</b>

\* Represents net book value as at December 31, 2000.

**Newfoundland Power Inc.**  
**Net Book Value Detail (\$000s)**

<b>Decade of Construction</b>	<b>Capital Cost</b>	<b>Accumulated Depreciation</b>	<b>Net Book Value</b>
1991 – 2000	42,754	7,638	35,116
1981 – 1990	13,725	5,473	8,252
1971 – 1980	5,081	3,116	1,965
1970 & prior	1,847	1,322	525
<b>Total</b>	<b>63,408</b>	<b>17,549</b>	<b>45,858</b>



**Newfoundland Power Inc.**  
**Pole Location by Community**

CAPPAHAYDEN	OLD PERLICAN	WINTERLAND	ELLISTON
RENEWS	DANIELS COVE	MOORING COVE	MABERLY
FERMEUSE	GRATES COVE	SPANISH ROOM	BONAVISTA
KINGMANS COVE	CAPLIN COVE	ROCK HARBOUR	SPILLARS COVE
PORT KIRWAN	LOW POINT	JEAN DE BAIE	TERRA NOVA
AQUAFORTE	LOWER ISLAND COVE	TERRENCEVILLE	TERRA NOVA NATIONAL PARK
FERRYLAND	JOBS COVE	GRAND LE PIERRE	GLOVERTOWN
CALVERT	BURNT POINT	JACQUES FONTAINE	TRAYTOWN
CAPE BROYLE	GULL ISLAND	ST. BERNARDS	SANDRINGHAM
ADMIRALS COVE	NORTHERN BAY	BAY L'ARGENT	EASTPORT
BRIGUS SOUTH	OCHER PIT COVE	LITTLE BAY EAST	SANDY COVE
TORS COVE	WESTERN BAY	HARBOUR MILLE	ST. CHADS
BAULINE	ADAMS COVE	BOAT HARBOUR WEST	BURNSIDE
ST. MICHAELS	BLACKHEAD	BROOKSIDE	HAPPY ADVENTURE
BURNT COVE	BROAD COVE	PARKERS COVE	SALVAGE
MOBILE	SMALL POINT	BAINE HARBOUR	GAMBO
WITLESS BAY	KINGSTON	RUSHOON	HARE BAY
GALLOWES COVE	PERRYS COVE	RED HARBOUR	DOVER
BAY BULLS	SALMON COVE	ENGLISH HARBOUR EAST	TRINITY
GOULDS	VICTORIA	LITTLE HARBOUR EAST	CENTREVILLE
PETTY HARBOUR	FRESHWATER	SOUTHERN HARBOUR	WAREHAM
MADDOX COVE	CARBONEAR	ARNOLD'S COVE	INDIAN BAY
KILBRIDE	BRISTOL'S HOPE	ARNOLD'S COVE STATION	VALLEYFIELD
MOUNT PEARL	HARBOUR GRACE	COME BY CHANCE	BADGERS QUAY
ST. JOHN'S	RIVERHEAD	SUNNYSIDE	POOL'S ISLAND
HOLYROOD	BRYANT'S COVE	GOOBIES	GREENSPOND
SEAL COVE	TILTON	NORTH HARBOUR	BROOKFIELD
UPPER GULLIES	THICKETT	GARDEN COVE	WESLEYVILLE
KELLIGREWS	UPPER ISLAND COVE	SWIFT CURRENT	POUND COVE
FOXTRAP	BISHOP'S COVE	NORTH WEST BROOK	TEMPLEMAN
LONG POND	SPANIARD'S BAY	QUEEN'S COVE	NEWTOWN
MANUELS	BAY ROBERTS	LONG BEACH	CAPE FREELS
CHAMBERLAINS	SHEARSTOWN	HODGE'S COVE	LUMSDEN
TOPSAIL	BUTLERVILLE	CAPLIN COVE	DEADMAN'S BAY
PARADISE	BARNEED	LITTLE HEART'S EASE	MUSGRAVE HARBOUR
CAPE ST. FRANCES	PORT DE GRAVE	BUTTER COVE	LADLE COVE

**Newfoundland Power Inc.**  
**Pole Location by Community**

POUCH COVE	NORTH RIVER	GOOSEBERRY COVE	ASPEN COVE
BAULINE	CLARKES BEACH	SOUTHPORT	CARMANVILLE SOUTH
SHOE COVE	SOUTH RIVER	IVANY'S COVE	CARMANVILLE
FLATROCK	MACKINSONS	HILLVIEW	NOGGIN COVE
TORBAY	JUNIPER STUMP	HATCHET COVE	FREDERICKTON
LOGY BAY	TURK'S WATER	ST. JONES WITHIN	DAVIDSVILLE
OUTER COVE	ROACHES LINE	ADEYTOWN	MAINPOINT
MIDDLE COVE	CUPIDS	DEEP BIGHT	GANDER BAY
WEDGEWOOD PK	BRIGUS	CLARENVILLE	GANDER
WABANA	GEORGETOWN	SHOAL HARBOUR	BENTON
LANCE COVE	MARYSVAYLE	RANDOM HEIGHTS	APPLETON
PORTUGAL COVE	COLLIERS	ELIOTT'S COVE	GLENWOOD
ST. PHILLIPS	CONCEPTION HARBOUR	SNOOK'S HARBOUR	CLARKE'S HEAD
ST. THOMAS	BRIGUS JUNCTION	ASPEY BROOK	WINGS POINT
LONG COVE	KITCHUSES	WEYBRIDGE	VICTORIA COVE
NORMAN'S COVE	BACON COVE	LADY COVE	RODGERS COVE
CHAPEL ARM	AVONDALE	HICKMAN'S HARBOUR	HORWOOD
LONG HARBOUR	HARBOUR MAIN	BRITANNIA	STONEVILLE
MT. ARLINGTON HEIGHTS	CHAPEL'S COVE	LOWER LANCE COVE	PORT ALBERT
BRANCH	HOLYROOD	PETLEY	BOYDS COVE
POINT LANCE	SALMONIER LINE	MILTON	STRONGS ISLAND
ST. BRIDES	LEAD COVE	GEORGE'S BROOK	SUMMERFORD
CUSLETT	SIBLEYS COVE	HARCOURT	COTTLE'S ISLAND
ANGEL'S COVE	BROWNSDALE	GIN COVE	VIRGIN ARM
PATRICK'S COVE	NEW MELBOURNE	MONROE	CARTER'S COVE
SHIP COVE	NEW CHELSEA	WATERVILLE	CHANCEPORT
BIG BARRASWAY	HANTS HARBOUR	CLIFTON	BRIDGEPORT
LITTLE BARRASWAY	WINTERTON	BURGOYNE'S COVE	MORTON'S HARBOUR
SOUTH EAST PLACENTIA	TURKS COVE	MORLEY'S SIDING	WHALES GULCH
POINT VERDE	NEW PERLICAN	LETHBRIDGE	TIZZARD'S HARBOUR
PLACENTIA	HEARTS CONTENT	BLOOMFIELD	FAIRBANKS EAST
JERSEYSIDE	HEARTS DESIRE	MUSGRAVETOWN	HILLGRADE
FRESHWATER	HEARTS DELIGHT	CANNING'S COVE	NEWVILLE
ARGENTIA	ISLINGTON	BUNYAN'S COVE	INDIAN COVE
FERNDALE	CAVENDISH	PORT BLANDFORD	MERRITS HARBOUR
DUNVILLE	WHITEWAY	CHARLOTTETOWN	SALT HARBOUR
FOX HARBOUR	GRAND BEACH	BROOKLYN	HERRING NECK

**Newfoundland Power Inc.**  
**Pole Location by Community**

SHIP HARBOUR	GRAND BANK	PORTLAND	TOO GOOD ARM
HOPE HALL	FORTUNE	JAMESTOWN	GREEN COVE
GREEN'S HARBOUR	POINT MAY	WINTER BROOK	PIKES ARM
DILDO	LAMALINE	CHARLESTON	COBBS ARM
NEW HARBOUR	ALLENS ISLAND	SWEET BAY	BLACK DUCK COVE
SOUTH DILDO	POINT AU GAUL	SOUTHERN BAY	KETTLE COVE
OLD SHOP	LORDS COVE	PRINCETON	BAYVIEW
BLAKETOWN	LAWN	SUMMERVILLE	TWILLINGATE
WHITBOURNE	ST. LAWRENCE	PLATE COVE WEST	LITTLE HARBOUR
MARKLAND	LITTLE ST. LAWRENCE	PLATE COVE EAST	PURCELL'S HARBOUR
HARICOTT	GARNISH	OPEN HALL	DURRELLS
COLLINET	FRENCHMAN'S COVE	RED CLIFF	CROW HEAD
NORTH HARBOUR	EPWORTH	TICKLE COVE	RAGGED POINT
MOUNT CARMEL	CORBIN	KING'S COVE	FORTUNE HARBOUR
ST. CATHERINES	LITTLE SALMONIER	DUNTARA	COTTRELL'S COVE
MITCHELLS BROOK	BURIN	KEELS	POINT OF BAY
FOREST FIELD	COLLINS COVE	STOCK COVE	PHILLIPS HEAD
NEW BRIDGE	SHIP COVE	KNIGHT'S COVE	NORTHERN ARM
ST. JOSEPHS	BURIN BAY	UPPER AMHERST COVE	LEADING TICKLES
O'DONNELLS	BULLS COVE	MIDDLE AMHERST COVE	GLOVERS HARBOUR
ADMIRALS BEACH	PORT AU BRAS	LOWER AMHERST COVE	POINT LEAMINGTON
MALL BAY	MORTIER	NEWMAN'S COVE	PLEASANTVIEW
RIVERHEAD	FOX COVE	BIRCHY COVE	BOTWOOD
ST. MARY'S	BURIN BAY ARM	LOCKSTON	PETERVIEW
POINT LAHAYE	SALT POND	TRINITY	BISHOP FALLS
GASKIERS	LEWINS COVE	GOOSE COVE	GRAND FALLS
ST. VINCENTS	SALMONIER	DUNFIELD	WINDSOR
ST. STEPHENS	MARYSTOWN	TROUTY	RED CLIFF
PETERS RIVER	LITTLE BAY	OLD BONAVENTURE	NORRIS ARM
ST. SHOTTS	BEAU BOIS	NEW BONAVENTURE	NORRIS ARM NORTH
TREPASSEY	CHANCE COVE	PORT REXTON	NOTRE DAME JUNCTION
BISCAY BAY	BAY DE VERDE	TRINITY EAST	LEWISPORTE
PORTUGAL COVE SOUTH	RED HEAD COVE	CHAMPNEY'S WEST	BROWN'S ARM
FAIRHAVEN	PORT UNION	CHAMPNEY'S EAST	PORTERVILLE
THORMLEA	CATALINA	ENGLISH HARBOUR	LAURENCETON
BELLEVUE	LITTLE CATALINA	MELROSE	STANHOPE
EMBREE	MASONS COVE	LITTLE BURNT BAY	LOCH LEVEN
MICHAEL'S HARBOUR	MASSEY DRIVE	ST. GEORGES	THREE ROCK COVE

**Newfoundland Power Inc.**  
**Pole Location by Community**

CAMPBELLTON	IRISH TOWN	ROSE BLANCHE	MAINLAND
LOON BAY	SUMMERSIDE	BURNT ISLAND	SHIP COVE
NEWSTEAD	MEADOWS	ISLE AUX MORTS	LOWER COVE
COMFORT COVE	GILLAMS	MARGAREE & FOX ROOST	SHEARS COVE
BAYTONA	MCIVERS	PORT AUX BASQUES	MARCHS POINT
BIRCHY BAY	COX'S COVE	CAPE RAY	RED BROOK
BUCHANS	STEADY BROOK	TOMPKINS	DEGRAS
BUCHANS JUNCTION	LITTLE RAPIDS	ST. ANDREWS	CAPE ST. GEORGE
MILLERTOWN	HUMBER VILLAGE	LOCH LOMOND	KIPPENS
BADGER	SOUTH BROOK	SEARSTON	STEPHENVILLE
SPRINGDALE	PASADENA	UPPER FERRY	COLD BROOK
BAIE VERTE JUNCTION	PYNNS BROOK	O'REGANS	NOEL'S BROOK
SHEPPARDSVILLE	ST. JUDES	GREAT CODROY	FLAT BAY
SANDY POINT	SPILLWAY	MILLVILLE	ST. THERESA'S
BAIE VERTE	DEER LAKE	WOODVILLE	CARTYVILLE
SEAL COVE	NICHOLSVILLE	CODROY	ROBINSON'S
WILD COVE	REIDVILLE	DOYLES	HEATHERTON
LARK HARBOUR	CORMACK	SOUTH BRANCH	MCKAYS
YORK HARBOUR	HOWLEY	COLD BROOK	JEFFERY'S
FRENCHMAN'S COVE	GALLANTS	PORT AU PORT	ST. DAVIDS
JOHN BEACH	BONNE BAY POND	POINT AU MAL	ST. FINTANS
BENOITS COVE	MATTIS POINT	FOX ISLAND RIVER	HIGHLANDS
HALFWAY POINT	BARACHOIS BROOK	PORT AU PORT WEST	CAMPBELLS CREEK
MT. MORRIAH	STEPHENVILLE CROSSING	AGUATHUNA	ABRAHAMS COVE
CORNER BROOK	BLACK DUCK SIDING	BOSWARLOS	PICCADILLY
HUGHES BROOK	GULL POND	FELIX COVE	WEST BAY
LOURDES	WINTERHOUSE	BLACK DUCK BROOK	

**Newfoundland Power Inc.**  
**Revenue Forecast (\$000s)**

<b>Year</b>	<b>Source</b>		<b>Total</b>
	<b>Aliant</b>	<b>CATV</b>	
2001	2,827	1,810	4,637
2002	4,555	1,835	6,390
2003	5,465	1,857	7,322
2004	6,395	1,885	8,280
2005	7,332	1,910	9,242

**Newfoundland Power Inc.  
Recovery of Costs of Support Structures**

	<b>Joint Use</b>	<b>Non-Joint Use</b>
Estimated Average Embedded Cost per Pole	\$700	\$350
Fixed Cost (@12%)	84	42
Operating and Maintenance Costs (@ 2%)	<u>14</u>	<u>7</u>
<b>Total Annual Cost per Pole</b>	<b>\$ 98</b>	<b>\$ 49</b>
Portion allocated to Aliant (@ 40% joint use; 100% non-joint use)	39	49
Less Average Recovery per Pole from CATV <sup>1</sup>	<u>(9)</u>	<u>(9)</u>
<b>Total Cost per Pole allocated to Aliant</b>	<b>\$ 30</b>	<b>\$ 40</b>
Weighted Average Cost per Pole	\$ 26 <sup>2</sup>	\$ 6 <sup>3</sup>
<b>Weighted Average Cost of Recovery per Pole (\$26 + \$6)</b>		<b>\$32</b>

<sup>1</sup> Cable revenue recovery per pole - \$1,810,000/211,970 = \$9

<sup>2</sup> Percentage of Joint Use poles 179,895/211,970 = 85%; 85% x 30 = \$26

<sup>3</sup> Percentage of Non-Joint Use poles 32,027/211,970 = 15%; 15% x 40 = \$6

**Newfoundland Power Inc.**  
**Support Structures Arrangement with Aliant Telecom Inc.**

**Economic Analyses**

**May 8, 2001**

## 1. Introduction

On March 1, 2001 Newfoundland Power Inc. ("Newfoundland Power") signed an agreement with Aliant Telecom Inc. ("Aliant") to purchase all of the support structures owned by Aliant on the island portion of the Province of Newfoundland (the "Purchase Agreement"). By the terms of the Purchase Agreement, the Company may assign all or a portion of its rights under the Purchase Agreement to an affiliated corporation. The Company has exercised this right of assignment for those support structures of Aliant situated outside of Newfoundland Power's service territory. Consequently, this economic analysis considers only the financial impacts associated with the support structures to be acquired from Aliant in Newfoundland Power's service territory (the "Service Territory").

In addition to the Purchase Agreement, the Company and Aliant have entered into a Facilities Partnership Agreement (the "Facilities Agreement"), whereby Aliant will continue to have access to the Company's support structures. The Company, as owner of all support structures in the Service Territory, will provide Aliant with services related to its support structure requirements, including the maintenance and replacement of the support structures acquired from Aliant and the design, construction and maintenance of additional support structures to meet Aliant's ongoing support structure requirements in the Service Territory.

The Facilities Agreement provides for an initial term of 10 years and for renewal terms as mutually agreed. Upon termination or non-renewal of the Facilities Agreement, Aliant is obliged to purchase all of the non-joint use poles on which it has attachments and 40% of the joint use poles at a price representing the net book value (original investment less accumulated depreciation) of those assets.

The purchase price of \$45,858,000 for the support structures to be acquired by Newfoundland Power represents the net book value of those assets. The purchase price will be paid over a five-year period in accordance with the terms of the Purchase Agreement. Aliant will compensate the Company for support structure services in accordance with the rental fees and capital contribution provisions of the Facilities Agreement. Newfoundland Power will also receive revenue from cable television service providers (the "Cable Companies") in respect of their attachments on the support structures to be purchased.

## 2. Methodology

### *General*

This report evaluates the economics of the new support structure arrangement with Aliant from two perspectives. Firstly, a rate impact analysis has been prepared that examines the impact of the arrangement on the rates paid by the Company's customers. Secondly, a cash flow analysis has been prepared that shows the net present value (NPV) of the



incremental revenues and costs associated with the arrangement. The analyses reveal that the arrangement is a positive one for the Company and its customers.

The detailed analyses, together with supporting information, are contained in Schedules A through L.

Both analyses evaluate the NPV of the proposed arrangement. Using this approach, only the incremental change in revenue and expenditures (capital and operating), and cash inflows / outflows are analyzed. The results of each analysis have been discounted to account for the time value of money, using the Company's weighted average cost of capital as the discount rate.

Both analyses consider the financial impact of the support structure arrangement over a 10-year period. The Facilities Agreement contemplates an initial term of 10 years, at which time either Newfoundland Power or Aliant can choose to discontinue the arrangement. Beyond 10 years, estimation of costs is subject to significant forecast variances. The benefits associated with increased operational efficiencies, however, which are expected to be more fully realized in subsequent renewal terms, would have a positive impact on the NPV of the arrangement in subsequent terms. The financial impact of such longer term efficiency gains is not accounted for in these analyses.

#### ***Rate Impact Analysis***

The rate impact analysis compares the incremental revenues associated with the Facilities Agreement and nets these revenues against the incremental costs associated with the Company's ownership of support structures. The costs are the sum of the cost of capital, depreciation, income tax and operating expenses.

If the analysis shows a revenue surplus, it would indicate that the proposed arrangement will tend to reduce electricity rates. A revenue deficit, on the other hand, would suggest that the proposed arrangement would tend to increase rates.

#### ***Cash Flow Analysis***

The net present value cash flow analysis nets the cash inflows associated with the Facilities Agreement against the incremental cash outflows associated with the ownership of support structures. The analysis focuses on the cash investment outlays and compares these with the cash inflows. The net cash flows for each year are discounted using the Company's weighted average cost of capital to account for the time value of money.

A positive NPV indicates that the Company's investment in the new arrangement will generate a return that is greater than the cost of capital used in determining the Company's electricity rates.

### 3. Rate Impact Analysis

The results of the rate impact analysis are shown in Table 1 below.

**Table 1**

**Rate Impact**

Year	Rental Revenue	Incremental Costs	Net Impact
2001	\$3,956,020	\$3,041,845	\$914,175
2002	5,692,848	5,194,787	498,061
2003	6,611,916	6,203,954	407,962
2004	7,552,155	6,971,790	580,365
2005	8,498,341	7,800,027	698,314
2006	8,636,258	8,181,273	454,985
2007	8,783,311	8,350,722	432,589
2008	8,932,560	8,523,428	409,132
2009	9,088,352	8,700,184	388,168
2010	9,253,792	8,881,970	371,822

Annualized Impact on  
Revenue Requirements  
(adjusted for tax)

544,174 <sup>1</sup>

<sup>1</sup> Terminal Value of \$259,907 which represents the difference between Net Book Value for accounting purposes and unamortized capital cost allowance for tax purposes is included in the annualized impact.

The rate impact analysis indicates that the revenue received by the Company pursuant to the Facilities Agreement will exceed the revenue requirements associated with the additional pole ownership and related obligations in each year. The annualized net present value of the annual revenue surplus for the 10-year period is \$0.5 million. While this suggests that the new support structure arrangement will have a positive impact on future customer electrical rates, the amount of the surplus is not large enough, in and of itself, to have a direct impact on rates. The detailed rate impact analysis is contained in Schedule A.

#### 4. Cash Flow Analysis

The results of the cash flow analysis are shown in Table 2 below.

**Table 2**  
**Cash Flow Analysis**

<b>Year</b>	<b>Net Cash Flow</b>
2001	(\$23,227,824)
2002	(7,774,080)
2003	(2,486,750)
2004	(1,791,591)
2005	(1,183,118)
2006	3,463,770
2007	3,491,808
2008	3,520,256
2009	3,549,425
2010	3,578,309
Terminal Value	54,822,893 <sup>1</sup>
Net Present Value after tax	1,623,503

<sup>1</sup> Terminal Value includes \$259,907 which represents the difference between Net Book Value for accounting purposes and unamortized capital cost allowance for tax purposes.

The net cash flows in the first five years reflect the scheduled payments of the purchase price under the Purchase Agreement. The terminal value of \$54.8 million at the end of the 10-year initial term represents the net book value of the support structures Aliant is required to purchase from Newfoundland Power if the Facilities Agreement is not renewed after the initial term.

The analysis reveals that the NPV of the after-tax cash flows associated with Company's purchase of Aliant's support structures and the provision of support structure services to Aliant over the 10-year analysis period is positive. In other words, the benefits of the arrangement with Aliant justify the costs. The detailed cash flow analysis is contained in Schedule B.

## 5. Assumptions

### *Inflation*

The analysis assumes that the costs associated with the new support structure arrangement will escalate at a rate equal to the Conference Board of Canada's GDP deflator series for Newfoundland, which is the inflation factor approved by the Board of Commissioners of Public Utilities for use in forecasting Newfoundland Power's non-labour costs.

### *Depreciation Expense*

Support structures purchased and installed are capitalized and become part of the Company's plant records. The support structures will be depreciated in accordance with the Company's depreciation policy which applies a depreciation rate of 2.93% for poles under 35 feet and a depreciation rate of 2.98% for poles 35 feet and over. For purposes of the analyses, a 3% depreciation rate was used. The detailed depreciation expense is contained in Schedule D.

### *Cost of Capital*

Net incremental revenues and cash flows are discounted to account for the time value of money. The discount rate used is the Company's weighted average cost of capital for 2001 of 9.31% as reflected in Order No. P.U. 20 (1999-2000).

### *Operating Expenses*

Effective January 1, 2001, the Company assumes responsibility for the maintenance of 100% of the support structures to be acquired from Aliant pursuant to the Purchase Agreement. The analysis makes provision for incremental operating costs associated with those support structures of \$500,000 per year, consisting of vegetation control costs of \$300,000 and administration, engineering and miscellaneous costs of \$200,000.

### *Pole Growth and Replacement*

The analysis assumes annual growth in the number of distribution poles to meet new service requirements. The projections for 2001 are based on planned capital work for the year. Projections for 2002 are based on an assessment of the Company's average pole growth and replacement experience, rounded upwards to provide a conservative estimate of the associated costs for the purpose of this analysis.

The projection of annual pole growth is escalated annually based on an estimate of future growth in the number of customers served. Pole replacements are assumed to increase annually over the 10-year period based on an assessment of the average remaining life of the poles.

***Pole Installation Costs***

The analysis assumes pole installation costs at \$975 per joint use pole and \$856 per non-joint use pole. These projections are based on the Company's current average costs of installing joint use and non-joint use poles.

***Cable Attachment Revenue***

Under the new arrangement, Newfoundland Power will receive the fees previously received by Aliant in respect of CATV Companies' attachments on Aliant's support structures. The analysis assumes incremental CATV attachment revenue in 2001 of \$1,129,000, which represents the billable revenue for 2001 pursuant to Aliant's arrangements with CATV Companies in the Service Territory.

CATV attachment revenue is assumed to grow at 60% of inflation as provided for in current arrangements with the CATV Companies. However, because the support structures are being acquired from Aliant over a 5-year period, CATV attachment revenue is shared with Aliant during the first 4 years of the arrangement in accordance with the terms of the Facilities Agreement. The projections of CATV attachment revenue employed in the analysis is conservative in that it does not account for growth in CATV attachment revenues due to increases in the number of customers served by the CATV Companies.

**6. Sensitivity Analysis**

A sensitivity analysis was performed on certain key assumptions underlying the analyses contained in this report. The sensitivity analysis examined the effect of increasing the inflation rate, adjusting components of the Company's capital structure affecting the weighted average cost of capital, increasing the projected growth in total distribution poles, increasing the projected rate of pole replacements, and increasing and decreasing incremental operating costs. The results of the sensitivity analysis are shown in Table 3 on the following page.

The sensitivity analysis shows that none of the changes in the key assumptions result in an increase in customer electricity rates.

**Table 3**  
**Sensitivity Analysis**  
**(\$000s)**

	<b>NPV Cash Flow</b>	<b>Annual Net Contribution to Revenue</b>	<b>Contribution as Percentage of Customer Rates (%)</b>
Base Case	1,624	544	0.16
Increase inflation by 2% per year and increase common equity from 9.59% to 11.25%	447	275	0.08
Increase the number of poles for growth by 500 in 2001. Increase the percentage growth in poles for 2003 and beyond from 1% to 2%	1,368	481	0.14
Increase pole replacements by 500 in 2001 and increase the growth beyond 2001 from 1.5% to 3% annually	979	389	0.11
Increase annual operating costs by \$100,000	1,147	433	0.13
Decrease annual operating costs by \$200,000 and decrease common equity to 9.25% and debt to 8%	4,325	1,143	0.33

## 7. **Conclusions**

Based on the assumptions in this report, the rate impact analysis demonstrates that the new support structures arrangement with Aliant will benefit the Company's customers. Further, the traditional net present value cash flow analysis shows that the net impact of the arrangement on the Company's cash flows over the 10-year initial term of the Facilities Agreement is positive, indicating that the benefits of the arrangement to the Company justify the investment.

This analysis does not include any consideration of the positive financial impact of the operational efficiency improvements the Company expects to achieve as it gains experience with the new arrangement.

**Schedule A**  
**Revenue Requirement**

1 of 2

Reference		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	<b>Incremental Revenue</b>										
2	C22 Pole Rental Charges to Aliant	\$ 2,827,020	\$ 4,554,601	\$ 5,465,366	\$ 6,395,350	\$ 7,332,282	\$ 7,461,745	\$ 7,599,189	\$ 7,738,795	\$ 7,884,239	\$ 8,038,172
3	C28 Cable Attachment Charges	1,129,000	1,138,247	1,146,550	1,156,805	1,166,059	1,174,513	1,184,122	1,193,765	1,204,113	1,215,620
4	A2+A3 Total Incremental Revenue	<u>\$ 3,956,020</u>	<u>\$ 5,692,848</u>	<u>\$ 6,611,916</u>	<u>\$ 7,552,155</u>	<u>\$ 8,498,341</u>	<u>\$ 8,636,258</u>	<u>\$ 8,783,311</u>	<u>\$ 8,932,560</u>	<u>\$ 9,088,352</u>	<u>\$ 9,253,792</u>
5											
6	<b>Incremental Costs</b>										
7	D5 Depreciation Expense	\$ 741,853	\$ 1,061,769	\$ 1,245,501	\$ 1,430,857	\$ 1,617,769	\$ 1,668,615	\$ 1,721,137	\$ 1,775,380	\$ 1,831,460	\$ 1,889,558
8	E5 Cost of Capital	1,147,207	2,772,587	3,509,577	4,021,575	4,522,134	4,803,915	4,873,367	4,944,111	5,016,237	5,090,057
9	F7 Large Corporation Tax	55,459	78,575	91,086	103,326	115,285	116,948	118,642	120,368	122,129	123,936
10	F17 Income Tax	597,326	775,031	844,803	895,397	1,017,263	1,057,844	1,096,345	1,134,991	1,173,856	1,213,053
11	A7 to A10 Capital Related Costs	<u>\$ 2,541,845</u>	<u>\$ 4,687,962</u>	<u>\$ 5,690,957</u>	<u>\$ 6,451,155</u>	<u>\$ 7,272,451</u>	<u>\$ 7,647,322</u>	<u>\$ 7,809,491</u>	<u>\$ 7,974,850</u>	<u>\$ 8,143,682</u>	<u>\$ 8,316,604</u>
12	Operating Expenses	500,000	506,825	512,987	520,635	527,576	533,951	541,231	548,578	556,502	565,366
13											
14	A11+A12 Total Revenue Required	<u>\$ 3,041,845</u>	<u>\$ 5,194,787</u>	<u>\$ 6,203,954</u>	<u>\$ 6,971,790</u>	<u>\$ 7,800,027</u>	<u>\$ 8,181,273</u>	<u>\$ 8,350,722</u>	<u>\$ 8,523,428</u>	<u>\$ 8,700,184</u>	<u>\$ 8,881,970</u>
15	Difference between UCC and NBV on sale of poles "Terminal Value"										
16	Surplus (Deficiency)	\$ 914,175	\$ 498,061	\$ 407,962	\$ 580,365	\$ 698,314	\$ 454,985	\$ 432,589	\$ 408,132	\$ 388,168	\$ 371,822

**Schedule A  
Revenue Requirement**

Page 2 of 2

Reference		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
17											
18	Surplus (Deficiency)	\$ 914,175	\$ 498,061	\$ 407,962	\$ 580,365	\$ 698,314	\$ 454,985	\$ 432,589	\$ 409,132	\$ 388,168	\$ 371,922
19											
20	Difference between UCC and NBV on sale of poles "Terminal Value"										\$ 259,907
21											
21	Surplus (Deficiency) Net of Terminal Value	\$ 914,175	\$ 498,061	\$ 407,962	\$ 580,365	\$ 698,314	\$ 454,985	\$ 432,589	\$ 409,132	\$ 388,168	\$ 111,915
22											
23	Income Tax Rate	42%	39%	37%	35%	35%	35%	35%	35%	35%	35%
24											
25	Income Tax	\$ 383,954	\$ 194,244	\$ 150,946	\$ 203,128	\$ 244,410	\$ 159,245	\$ 151,406	\$ 143,196	\$ 135,859	\$ 39,170
26											
27	After Tax Surplus	\$ 530,221	\$ 303,817	\$ 257,016	\$ 377,237	\$ 453,904	\$ 295,740	\$ 281,183	\$ 265,936	\$ 252,309	\$ 72,745
28											
29	L29 Discount Factor - Mid Year	0.9657	0.9651	0.9646	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
30	L33 Discount Factor - Year End	0.9326	0.9313	0.9305	0.9296	0.9296	0.9296	0.9296	0.9296	0.9296	0.9296
31											
32											
33	A27*A29 Current Year Cash Flow	\$ 512,049	\$ 293,201	\$ 247,921	\$ 363,720	\$ 437,640	\$ 285,143	\$ 271,107	\$ 256,406	\$ 243,266	\$ 70,138
34	Previous NPV	\$ 1,814,595	\$ 1,652,472	\$ 1,526,378	\$ 1,278,705	\$ 935,725	\$ 721,426	\$ 504,937	\$ 286,760	\$ 65,202	
35											
36	Net Present Value (After Tax)	\$ 2,326,645	\$ 1,945,673	\$ 1,774,299	\$ 1,640,425	\$ 1,373,365	\$ 1,006,569	\$ 776,045	\$ 543,166	\$ 308,470	\$ 70,138
37	Levelized Payment	\$ 353,713									
38	Levelized Payment (adj. for tax)	\$ 544,174									



**Schedule B  
Cash Flow**

Reference		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	Inflows										
2	C30 Pole rental Fees	\$ 2,827,020	\$ 4,554,601	\$ 5,485,386	\$ 8,395,350	\$ 7,332,282	\$ 7,461,745	\$ 7,599,189	\$ 7,738,795	\$ 7,884,239	\$ 8,038,172
3	C28 Cable Attachment Revenue	1,129,000	1,138,247	1,146,550	1,156,805	1,166,059	1,174,513	1,184,122	1,193,765	1,204,113	1,215,820
4	H28 Sale of Poles to Alliant at NBV										55,062,800
5	B2+B3+B4 Total Inflows	\$ 3,956,020	\$ 5,692,848	\$ 6,631,936	\$ 7,552,155	\$ 8,498,341	\$ 8,636,258	\$ 8,783,311	\$ 8,932,560	\$ 9,088,352	\$ 64,336,592
6											
7	Outflows										
8	Pole Purchases	\$ 22,928,834	\$ 9,171,534	\$ 4,585,767	\$ 4,585,767	\$ 4,585,767	\$ -	\$ -	\$ -	\$ -	\$ -
9	I33 Pole Installations	2,461,300	2,164,027	2,220,528	2,284,907	2,347,035	2,407,780	2,474,193	2,542,279	2,614,225	2,692,857
10	Operating Expenses	500,000	506,825	512,987	520,635	527,576	533,951	541,231	548,578	556,502	565,366
11	B42 Increase in Income Tax	1,293,710	1,824,542	1,779,384	1,952,537	2,221,081	2,230,758	2,276,079	2,321,447	2,368,199	2,417,261
12	Difference between NBV and UCC on sale of poles										259,907
13	Total Outflows	\$ 27,183,844	\$ 13,466,928	\$ 9,098,666	\$ 9,343,746	\$ 9,681,459	\$ 5,172,488	\$ 5,291,503	\$ 5,412,304	\$ 5,538,927	\$ 5,935,391
14	Net After Tax Cash Inflow (Outflow)	\$ (23,227,824)	\$ (7,774,080)	\$ (2,466,730)	\$ (1,791,591)	\$ (1,183,118)	\$ 3,463,769	\$ 3,491,808	\$ 3,520,256	\$ 3,549,425	\$ 58,401,201
15											
16	- Opening	\$ (22,928,834)	\$ (9,171,534)	\$ (4,585,767)	\$ (4,585,767)	\$ (4,585,767)	\$ -	\$ -	\$ -	\$ -	\$ -
17	- Mid Year	(298,890)	1,397,454	2,099,017	2,794,175	3,402,649	3,483,769	3,491,808	3,520,256	3,549,425	3,578,308
18	- End of Year										54,822,893
19		\$ (23,227,824)	\$ (7,774,080)	\$ (2,466,730)	\$ (1,791,591)	\$ (1,183,118)	\$ 3,463,769	\$ 3,491,808	\$ 3,520,256	\$ 3,549,425	\$ 58,401,201
20	Discount Factor										
21	- Mid Year	0.9657	0.9651	0.9646	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
22	- End of Year	0.9326	0.9313	0.9305	0.9296	0.9296	0.9296	0.9296	0.9296	0.9296	0.9296
23											
24	NPV - Discounted Cash Flow										
25	- Opening	\$ (22,928,834)	\$ (9,171,534)	\$ (4,585,767)	\$ (4,585,767)	\$ (4,585,767)	\$ -	\$ -	\$ -	\$ -	\$ -
26	- Mid Year	(288,743)	1,348,625	2,024,738	2,694,052	3,280,722	3,339,653	3,366,687	3,394,116	3,422,239	3,450,088
27	- End of Year										50,964,369
28	- Previous	24,841,080	34,458,386	39,559,839	44,407,359	49,074,495	49,450,284	49,827,490	50,205,824	50,584,679	-
29		\$ 1,623,503	\$ 28,635,477	\$ 36,998,610	\$ 42,515,644	\$ 47,769,480	\$ 52,789,937	\$ 53,194,177	\$ 53,589,941	\$ 54,006,918	\$ 54,414,457
30											
31	Income Tax Impact										
32	B5-B10 Increase in Income	\$ 3,456,020	\$ 5,186,022	\$ 6,098,929	\$ 7,031,521	\$ 7,970,765	\$ 8,102,307	\$ 8,242,080	\$ 8,383,983	\$ 8,531,860	\$ 8,688,426
33	K16 CCA	(507,803)	(1,222,004)	(1,535,960)	(1,748,060)	(1,954,205)	(2,082,849)	(2,077,974)	(2,095,185)	(2,114,507)	(2,136,069)
34	Increase in Taxable Income	\$ 2,948,217	\$ 3,964,018	\$ 4,562,968	\$ 5,283,461	\$ 6,016,560	\$ 6,039,458	\$ 6,164,106	\$ 6,288,798	\$ 6,417,353	\$ 6,552,357
35											
36	Tax Rate	42.00%	39.00%	37.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
37											
38	Income Tax	\$ 1,238,251	\$ 1,545,967	\$ 1,688,298	\$ 1,849,211	\$ 2,105,796	\$ 2,113,810	\$ 2,157,437	\$ 2,201,079	\$ 2,246,070	\$ 2,293,325
39											
40	F7 Large Corporation Tax	\$ 55,459	\$ 78,575	\$ 91,088	\$ 103,326	\$ 115,285	\$ 116,948	\$ 118,642	\$ 120,368	\$ 122,129	\$ 123,936
41											
42	Increase in Income Tax	\$ 1,293,710	\$ 1,624,542	\$ 1,779,384	\$ 1,952,537	\$ 2,221,081	\$ 2,230,758	\$ 2,276,079	\$ 2,321,447	\$ 2,368,199	\$ 2,417,261

**Schedule C  
Incremental Revenue**

Page 1 of 1

Reference		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	<b>Pole Rentals to Alliant</b>										
2											
3	Initial Pole Rate	\$ 32.00									
4											
5	Gross Domestic Product Implicit Price Deflator - Canada	1.0000	1.0137	1.0260	1.0413	1.0552	1.0679	1.0825	1.0972	1.1130	1.1307
6											
7	Pole rental rate adj. factor	0.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
8											
9	C5*C7 Adjusted Price Escalator	1.0000	1.0068	1.0129	1.0205	1.0273	1.0335	1.0406	1.0476	1.0552	1.0636
10											
11	Billing Rate per Pole	\$ 32.0000	\$ 32.2184	\$ 32.4143	\$ 32.6559	\$ 32.8736	\$ 33.0722	\$ 33.2976	\$ 33.5236	\$ 33.7658	\$ 34.0347
12											
13	G34 Number of Billable Poles	105,985	151,879	175,576	199,298	223,045	225,620	228,220	230,846	233,498	236,176
14											
15	Annual Fee before Cable Attachment Credit	\$ 3,391,520	\$ 4,893,301	\$ 5,691,166	\$ 6,508,250	\$ 7,332,282	\$ 7,461,745	\$ 7,599,189	\$ 7,738,795	\$ 7,884,239	\$ 8,038,172
16											
17	Cable Company Attachment Revenue to be shared with Alliant	\$ (1,129,000)	\$ (1,129,000)	\$ (1,129,000)	\$ (1,129,000)						
18	% of Cable Company Revenue to be shared with Alliant	50%	30%	20%	10%						
19											
20	Cable Company Attachment Credit	\$ (564,500)	\$ (338,700)	\$ (225,800)	\$ (112,900)						
21											
22	<b>Total Pole Rentals from Alliant</b>	\$ 2,827,020	\$ 4,554,601	\$ 5,465,366	\$ 6,395,350	\$ 7,332,282	\$ 7,461,745	\$ 7,599,189	\$ 7,738,795	\$ 7,884,239	\$ 8,038,172
23											
24	Gross Domestic Product Implicit Price Deflator - Canada	1.0000	1.0137	1.0260	1.0413	1.0552	1.0679	1.0825	1.0972	1.1130	1.1307
25											
26	Cable Company attachment revenue adjustment factor	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
27	Cable Company attachment revenue escalator	1.0000	1.0082	1.0155	1.0246	1.0328	1.0403	1.0488	1.0574	1.0665	1.0767
28	<b>Cable Attachment Revenue</b>	\$ 1,129,000	\$ 1,138,247	\$ 1,146,550	\$ 1,156,805	\$ 1,166,059	\$ 1,174,513	\$ 1,184,122	\$ 1,193,765	\$ 1,204,113	\$ 1,215,620
29											
30	<b>Total Pole Rental Fee</b>	\$ 3,956,020	\$ 5,692,848	\$ 6,611,916	\$ 7,552,155	\$ 8,498,341	\$ 8,636,258	\$ 8,783,311	\$ 8,932,560	\$ 9,088,352	\$ 9,253,792

**Schedule D  
Depreciation Expense**

Page 1 of 1

Reference		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1											
2	Closing Book Value	\$ 24,728,428	\$ 35,392,289	\$ 41,516,712	\$ 47,695,239	\$ 53,925,642	\$ 55,620,489	\$ 57,371,218	\$ 59,179,318	\$ 61,048,651	\$ 62,985,276
3											
4	Depreciation Rate	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>	<u>3.00%</u>
5	Total Depreciation Expense	<u>\$ 741,853</u>	<u>\$ 1,061,769</u>	<u>\$ 1,245,501</u>	<u>\$ 1,430,857</u>	<u>\$ 1,617,769</u>	<u>\$ 1,668,615</u>	<u>\$ 1,721,137</u>	<u>\$ 1,775,380</u>	<u>\$ 1,831,460</u>	<u>\$ 1,889,558</u>

Schedule E  
Cost of Capital

Page 1 of 1

Reference			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	H27	Average Investment	\$ 12,324,141	\$ 29,785,177	\$ 37,702,470	\$ 43,202,724	\$ 48,580,098	\$ 51,607,196	\$ 52,353,307	\$ 53,113,285	\$ 53,888,117	\$ 54,681,148
2												
3	L17	Weighted Cost of Capital	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%
4												
5	E1*E3	Cost of Capital	\$ 1,147,207	\$ 2,772,587	\$ 3,509,577	\$ 4,021,575	\$ 4,522,134	\$ 4,803,915	\$ 4,873,367	\$ 4,944,111	\$ 5,016,237	\$ 5,090,057

**Schedule F**  
**Income Taxes for Revenue Requirement**

Page 1 of 1

Reference			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	E5	Cost of Capital	\$ 1,147,207	\$ 2,772,587	\$ 3,509,577	\$ 4,021,575	\$ 4,522,134	\$ 4,803,915	\$ 4,873,367	\$ 4,944,111	\$ 5,016,237	\$ 5,090,057
2		Equity as a % of Weighted										
3		Average Cost of Capital	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%
4		Return on Equity in Cost of										
5		Capital	\$ 535,369	\$ 1,293,889	\$ 1,637,822	\$ 1,876,757	\$ 2,110,353	\$ 2,241,853	\$ 2,274,264	\$ 2,307,278	\$ 2,340,938	\$ 2,375,387
6		Add - Depreciation	\$ 741,853	\$ 1,061,769	\$ 1,245,501	\$ 1,430,857	\$ 1,617,769	\$ 1,668,615	\$ 1,721,137	\$ 1,775,380	\$ 1,831,460	\$ 1,889,558
7	F22	Add - Large Corporation Tax	55,459	78,575	91,086	103,326	115,285	116,948	118,642	120,368	122,129	123,936
8			<u>\$ 797,312</u>	<u>\$ 1,140,343</u>	<u>\$ 1,336,587</u>	<u>\$ 1,534,183</u>	<u>\$ 1,733,054</u>	<u>\$ 1,785,562</u>	<u>\$ 1,839,779</u>	<u>\$ 1,895,748</u>	<u>\$ 1,953,588</u>	<u>\$ 2,013,494</u>
9												
10		Deduct - CCA	(507,803)	(1,222,004)	(1,535,961)	(1,748,060)	(1,954,205)	(2,062,849)	(2,077,974)	(2,095,185)	(2,114,507)	(2,136,069)
11												
12		Subtotal	\$ 824,878	\$ 1,212,228	\$ 1,438,449	\$ 1,662,880	\$ 1,889,203	\$ 1,964,566	\$ 2,036,069	\$ 2,107,841	\$ 2,180,020	\$ 2,252,812
13		Corporate Income Tax Rate	42.00%	39.00%	37.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
14												
15		Pre-tax Gross Up	\$ 1,422,204	\$ 1,987,259	\$ 2,283,252	\$ 2,558,276	\$ 2,906,464	\$ 3,022,410	\$ 3,132,413	\$ 3,242,832	\$ 3,353,875	\$ 3,465,866
16												
17		Income Tax	\$ 597,326	\$ 775,031	\$ 844,803	\$ 895,397	\$ 1,017,263	\$ 1,057,844	\$ 1,096,345	\$ 1,134,991	\$ 1,173,856	\$ 1,213,053
18												
19		Large Corporation Tax										
20		Net Book Value of Assets	\$ 24,648,281	\$ 34,922,073	\$ 40,482,866	\$ 45,922,582	\$ 51,237,614	\$ 51,976,778	\$ 52,729,835	\$ 53,496,734	\$ 54,279,499	\$ 55,082,797
21		Large Corporation Tax Rate	0.225%	0.225%	0.225%	0.225%	0.225%	0.225%	0.225%	0.225%	0.225%	0.225%
22		Large Corporation Tax	\$ 55,459	\$ 78,575	\$ 91,086	\$ 103,326	\$ 115,285	\$ 116,948	\$ 118,642	\$ 120,368	\$ 122,129	\$ 123,936

**Schedule G**  
**Support Structure Details**

Page 1 of 1

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Joint Use</b>										
Opening	179,943	182,218	184,493	186,791	189,112	191,456	193,823	196,214	198,629	201,068
Installations - Growth	2,275	2,275	2,298	2,321	2,344	2,367	2,391	2,415	2,439	2,463
Installations - Replacements	2,550	2,588	2,627	2,666	2,706	2,747	2,788	2,830	2,872	2,915
Retirements	(2,550)	(2,588)	(2,627)	(2,666)	(2,706)	(2,747)	(2,788)	(2,830)	(2,872)	(2,915)
Closing Balance	<u>182,218</u>	<u>184,493</u>	<u>186,791</u>	<u>189,112</u>	<u>191,456</u>	<u>193,823</u>	<u>196,214</u>	<u>198,629</u>	<u>201,068</u>	<u>203,531</u>
<b>Non-Joint Use</b>										
Opening	32,027	33,252	33,477	33,704	33,933	34,164	34,397	34,632	34,869	35,108
Installations - Growth	1,225	225	227	229	231	233	235	237	239	241
Installations - Replacements	450	457	464	471	478	485	492	499	506	514
Retirements	(450)	(457)	(464)	(471)	(478)	(485)	(492)	(499)	(506)	(514)
Closing Balance	<u>33,252</u>	<u>33,477</u>	<u>33,704</u>	<u>33,933</u>	<u>34,164</u>	<u>34,397</u>	<u>34,632</u>	<u>34,869</u>	<u>35,108</u>	<u>35,349</u>
<b>All Poles</b>										
Opening	211,970	215,470	217,970	220,495	223,045	225,620	228,220	230,846	233,498	236,176
Installations - Growth	3,500	2,500	2,525	2,550	2,575	2,600	2,626	2,652	2,678	2,704
Installations - Replacements	3,000	3,045	3,091	3,137	3,184	3,232	3,280	3,329	3,378	3,429
Retirements	(3,000)	(3,045)	(3,091)	(3,137)	(3,184)	(3,232)	(3,280)	(3,329)	(3,378)	(3,429)
Closing Balance	<u>215,470</u>	<u>217,970</u>	<u>220,495</u>	<u>223,045</u>	<u>225,620</u>	<u>228,220</u>	<u>230,846</u>	<u>233,498</u>	<u>236,176</u>	<u>238,880</u>
<b>Billable Poles</b>										
Opening Balance	211,970	215,470	217,970	220,495	223,045	225,620	228,220	230,846	233,498	236,176
Initial Pole Count	211,970	211,970	211,970	211,970						
Alliant's percentage of ownership of initial pole count	50%	30%	20%	10%						
Credit for Alliant's Ownership	(105,985)	(63,591)	(42,394)	(21,197)						
Billable Poles	<u>105,985</u>	<u>151,879</u>	<u>175,576</u>	<u>199,298</u>	<u>223,045</u>	<u>225,620</u>	<u>228,220</u>	<u>230,846</u>	<u>233,498</u>	<u>236,176</u>

Schedule H  
Book Value Fixed Assets

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	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Book Value</b>										
Opening	\$ -	\$ 24,728,428	\$ 35,392,289	\$ 41,516,712	\$ 47,695,239	\$ 53,925,642	\$ 55,620,489	\$ 57,371,218	\$ 59,179,318	\$ 61,048,651
Purchased from Allant	22,928,834	9,171,534	4,585,767	4,585,767	4,585,767					
Installations Growth										
Joint Use	887,250	899,362	919,499	942,546	964,577	985,812	1,009,386	1,033,356	1,058,701	1,086,147
Non Joint Use	423,850	79,695	62,090	84,930	87,615	90,179	93,036	95,957	99,087	102,540
Replacements										
Joint Use	994,500	1,023,098	1,051,141	1,082,649	1,113,543	1,144,076	1,176,983	1,210,930	1,246,854	1,285,473
Non-Joint Use	155,700	161,671	167,797	174,661	181,299	187,713	194,786	202,036	209,783	218,696
Retirements	(661,706)	(671,699)	(681,872)	(692,045)	(702,398)	(712,932)	(723,465)	(734,178)	(744,892)	(756,232)
Closing	<u>\$ 24,728,428</u>	<u>\$ 35,392,289</u>	<u>\$ 41,516,712</u>	<u>\$ 47,695,239</u>	<u>\$ 53,925,642</u>	<u>\$ 55,620,489</u>	<u>\$ 57,371,218</u>	<u>\$ 59,179,318</u>	<u>\$ 61,048,651</u>	<u>\$ 62,985,276</u>
<b>Accumulated Depreciation</b>										
Depreciation Expense	\$ (741,853)	\$ (1,803,622)	\$ (3,049,123)	\$ (4,479,980)	\$ (6,097,749)	\$ (7,766,364)	\$ (9,487,501)	\$ (11,262,880)	\$ (13,094,340)	\$ (14,983,898)
Retirements	661,706	1,333,405	2,015,277	2,707,322	3,408,720	4,122,652	4,846,117	5,580,296	6,325,187	7,081,422
Total Accumulated Depreciation	<u>\$ (80,147)</u>	<u>\$ (470,217)</u>	<u>\$ (1,033,846)</u>	<u>\$ (1,772,658)</u>	<u>\$ (2,688,029)</u>	<u>\$ (3,643,712)</u>	<u>\$ (4,641,383)</u>	<u>\$ (5,682,585)</u>	<u>\$ (6,769,152)</u>	<u>\$ (7,902,476)</u>
<b>Net Book Value</b>	<u>\$ 24,648,281</u>	<u>\$ 34,922,072</u>	<u>\$ 40,482,866</u>	<u>\$ 45,922,581</u>	<u>\$ 51,237,613</u>	<u>\$ 51,976,778</u>	<u>\$ 52,729,834</u>	<u>\$ 53,496,734</u>	<u>\$ 54,279,499</u>	<u>\$ 55,082,800</u>
Average Investment	\$ 12,324,141	\$ 29,785,177	\$ 37,702,489	\$ 43,202,723	\$ 48,580,097	\$ 51,607,195	\$ 52,353,306	\$ 53,113,284	\$ 53,688,116	\$ 54,681,149

**Subsidiary I**  
**Installation Costs**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Joint Use</b>										
Cost per Joint Use Pole Installation	\$ 975	\$ 988	\$ 1,000	\$ 1,015	\$ 1,029	\$ 1,041	\$ 1,055	\$ 1,070	\$ 1,085	\$ 1,102
Growth - Number of Poles	2,275	2,275	2,298	2,321	2,344	2,367	2,391	2,415	2,439	2,463
Total Cost	\$ 2,218,125	\$ 2,248,404	\$ 2,298,747	\$ 2,356,366	\$ 2,411,443	\$ 2,464,531	\$ 2,523,464	\$ 2,583,389	\$ 2,646,753	\$ 2,715,369
Incremental Cost (40%)	\$ 887,250	\$ 899,362	\$ 919,499	\$ 942,546	\$ 964,577	\$ 985,812	\$ 1,009,386	\$ 1,033,356	\$ 1,058,701	\$ 1,086,147
<b>Replacements - Number of Poles</b>										
Cost per Replacement	\$ 2,550	\$ 2,588	\$ 2,627	\$ 2,666	\$ 2,706	\$ 2,747	\$ 2,788	\$ 2,830	\$ 2,872	\$ 2,915
Total Cost	2,486,250	2,557,745	2,627,854	2,706,623	2,783,858	2,860,188	2,942,458	3,027,326	3,116,636	3,213,682
Incremental Cost (40%)	\$ 994,500	\$ 1,023,098	\$ 1,051,141	\$ 1,082,649	\$ 1,113,543	\$ 1,144,075	\$ 1,176,983	\$ 1,210,930	\$ 1,246,654	\$ 1,285,473
<b>Total Incremental Cost of Joint Use Poles</b>	<b>\$ 1,881,750</b>	<b>\$ 1,922,460</b>	<b>\$ 1,970,640</b>	<b>\$ 2,025,196</b>	<b>\$ 2,078,120</b>	<b>\$ 2,129,887</b>	<b>\$ 2,186,369</b>	<b>\$ 2,244,286</b>	<b>\$ 2,305,356</b>	<b>\$ 2,371,620</b>
<b>Non-Joint Use</b>										
Cost per Non-Joint Use Pole	\$ 856	\$ 868	\$ 878	\$ 891	\$ 903	\$ 914	\$ 927	\$ 939	\$ 953	\$ 968
Alliant's Contribution per pole	510	513	517	520	524	527	531	534	538	542
Growth - Number of Poles	1,225	225	227	229	231	233	235	237	239	241
Total Cost	1,048,600	195,229	199,359	204,114	208,641	212,991	217,748	222,582	227,703	233,266
Alliant's Contribution	(624,750)	(115,534)	(117,269)	(119,184)	(121,026)	(122,811)	(124,710)	(126,625)	(128,616)	(130,725)
Incremental Cost	\$ 423,850	\$ 79,695	\$ 82,090	\$ 84,930	\$ 87,615	\$ 90,179	\$ 93,038	\$ 95,957	\$ 99,087	\$ 102,540
<b>Replacements - Number of Poles</b>										
Cost per Replacement	450	457	464	471	478	485	492	499	506	514
Total Cost	365,200	396,532	407,501	419,815	431,734	443,350	455,881	468,643	482,082	497,504
Alliant's Contribution	(229,500)	(234,861)	(239,703)	(245,133)	(250,435)	(255,638)	(261,095)	(266,807)	(272,300)	(278,808)
Total Incremental cost of non-joint use installations	\$ 155,700	\$ 161,671	\$ 167,797	\$ 174,681	\$ 181,299	\$ 187,713	\$ 194,786	\$ 202,036	\$ 209,783	\$ 218,696
<b>Total</b>										
Growth	\$ 1,311,100	\$ 979,058	\$ 1,001,589	\$ 1,027,476	\$ 1,052,192	\$ 1,075,992	\$ 1,102,424	\$ 1,129,313	\$ 1,157,788	\$ 1,186,886
Replacements	1,150,200	1,184,969	1,218,939	1,257,331	1,294,843	1,331,788	1,371,769	1,412,966	1,456,437	1,504,169
Total Installation Incremental Cost	\$ 2,461,300	\$ 2,164,027	\$ 2,220,528	\$ 2,284,807	\$ 2,347,035	\$ 2,407,780	\$ 2,474,193	\$ 2,542,279	\$ 2,614,225	\$ 2,692,857



Schedule J  
Retirements

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Average Net Book Value of a Pole Purchased From Alliant	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14	\$ 450.14
<b>Joint Use</b>										
Number of Poles Retired	(2,550)	(2,588)	(2,627)	(2,666)	(2,706)	(2,747)	(2,788)	(2,830)	(2,872)	(2,915)
Total Cost of Joint Use Retirements	\$ (1,147,857)	\$ (1,164,962)	\$ (1,182,518)	\$ (1,200,073)	\$ (1,218,079)	\$ (1,236,535)	\$ (1,254,990)	\$ (1,273,896)	\$ (1,292,802)	\$ (1,312,158)
Newfoundland Power's share at (40%)	(459,143)	(465,985)	(473,007)	(480,029)	(487,232)	(494,614)	(501,996)	(509,558)	(517,121)	(524,863)
<b>Non Joint Use</b>										
Number of Poles Retired	(450)	(457)	(464)	(471)	(478)	(485)	(492)	(499)	(506)	(514)
Non Joint Use	\$ (202,563)	\$ (205,714)	\$ (208,865)	\$ (212,016)	\$ (215,167)	\$ (218,318)	\$ (221,469)	\$ (224,620)	\$ (227,771)	\$ (231,372)
<b>Total Incremental Cost of Retirements</b>	<u>\$ (661,706)</u>	<u>\$ (671,699)</u>	<u>\$ (681,872)</u>	<u>\$ (692,045)</u>	<u>\$ (702,398)</u>	<u>\$ (712,932)</u>	<u>\$ (723,465)</u>	<u>\$ (734,178)</u>	<u>\$ (744,892)</u>	<u>\$ (756,235)</u>

**Schedule K**  
**Capital Cost Allowance**

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1	UCC at beginnning	\$ -	\$ 24,882,331	\$ 34,995,887	\$ 40,266,221	\$ 45,388,736	\$ 50,367,333	\$ 50,712,264	\$ 51,108,483	\$ 51,555,577	\$ 52,055,295
2											
3	Additions										
4	Purchased from Allant	\$ 22,928,834	\$ 9,171,534	\$ 4,585,767	\$ 4,585,767	\$ 4,585,767					
5	Growth	1,311,100	979,057	1,001,589	1,027,476	1,052,192	1,075,992	1,102,424	1,129,313	1,157,788	1,188,688
6	Replacements	1,150,200	1,184,969	1,218,939	1,257,331	1,294,843	1,331,788	1,371,769	1,412,966	1,456,437	1,504,169
7											
8	UCC Additions	\$ 25,390,134	\$ 11,335,560	\$ 6,806,295	\$ 6,870,574	\$ 6,932,802	\$ 2,407,780	\$ 2,474,193	\$ 2,542,279	\$ 2,614,225	\$ 2,692,857
9											
10	CCA - Additions	\$ (507,803)	\$ (226,711)	(\$136,125)	\$ (137,411)	\$ (138,656)	\$ (48,156)	\$ (49,484)	\$ (50,846)	(\$52,284)	\$ (53,857)
11	CCA - Previous UCC	-	(995,293)	(1,399,835)	(1,610,649)	(1,815,549)	(2,014,693)	(2,028,491)	(2,044,339)	(2,062,223)	(2,082,212)
12											
13	Total CCA	\$ (507,803)	\$ (1,222,004)	\$ (1,535,960)	\$ (1,748,060)	\$ (1,954,205)	\$ (2,062,849)	\$ (2,077,974)	\$ (2,095,185)	\$ (2,114,507)	\$ (2,136,069)
14											
15	UCC at End	\$ 24,882,331	\$ 34,995,887	\$ 40,266,221	\$ 45,388,736	\$ 50,367,333	\$ 50,712,264	\$ 51,108,483	\$ 51,555,577	\$ 52,055,295	\$ 52,612,083

## Weighted Average Cost of Capital

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
2 Weighted Average Cost of Capital (%)										
3 Debt	54.08%	54.08%	54.08%	54.08%	54.08%	54.08%	54.08%	54.08%	54.08%	54.08%
4 Preferred Equity	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%	1.83%
5 Common Equity	44.09%	44.09%	44.09%	44.09%	44.09%	44.09%	44.09%	44.09%	44.09%	44.09%
6										
7 Cost										
8 Debt	9.18%	9.18%	9.18%	9.18%	9.18%	9.18%	9.18%	9.18%	9.18%	9.18%
9 Preferred Equity	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%	6.33%
10 Common Equity	9.59%	9.59%	9.59%	9.59%	9.59%	9.59%	9.59%	9.59%	9.59%	9.59%
11										
12 Weighted Cost										
13 Embedded Cost of Debt	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
14 Embedded Cost of Preferred Equity	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
15 Embedded Cost of Common Equity	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%
16										
17 Weighted Cost of Capital	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%	9.31%
18 Equity as a % of Weighted Average Cost of Capital	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%	46.67%
19										
20 After Tax Cost of Capital										
21 Embedded Cost of Debt	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%	4.96%
22 Income Tax Rate	42.00%	39.00%	37.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
23 After Tax Cost Of Debt	2.88%	3.03%	3.13%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%	3.23%
24 Embedded Cost of Preferred Equity	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%	0.12%
25 Embedded Cost of Common Equity	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%	4.23%
26 After Tax Weighted Average Cost of Capital	7.22%	7.37%	7.47%	7.57%	7.57%	7.57%	7.57%	7.57%	7.57%	7.57%
27										
28										
29 After Tax Discount Factor	0.9326	0.8686	0.8082	0.7513	0.6984	0.6493	0.6036	0.5611	0.5216	0.4849