

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

IN THE MATTER OF an Application
by Newfoundland Power for approval of:

(1) under section 41 of the Act, its 2004 capital
purchases, and construction projects in excess of \$50,000,
and

(2) under section 78 of the Act, the fixing and determining
of its rate base for 2002 in the amount of \$573,337,000

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TO:

The Board of Commissioners of Public Utilities (the “Board”)

THE APPLICANT’S BURDEN

1. P.U. 36 (2002-2003), the decision of the Board on Newfoundland Power’s 2003 capital budget application, imposed new filing requirements on the utility when filing for approval under section 41 of the *Public Utilities Act*. The Schedule C filing requirements set out the minimum documentation expected of NP when applying for approval of its capital budget.
2. The Schedule C filing requirements stem from P.U. 7 (2002-2003), the decision on Newfoundland and Labrador Hydro’s 2002 capital budget application. The Board wrote in P.U. 7 (2002-2003), p.95:

The Board will require NLH commencing with its 2003 capital budget application, to use a net present value methodology together with supporting justification to evaluate projects of a material amount. Where a project is not evaluated against other acceptable alternatives and/or, if the project does not produce a positive net present value, sufficient rationale must be provided to justify implementation.

3. In P.U. 36 (2002-2003), the Board stated:

The Board acknowledges its role as one of testing the necessity and reasonableness of the utility’s expenditures based on efficient management and operation of its assets as well as the equitable access to least cost and reliable power while at the same time maintaining a balance between the competing interests of consumers and investors in the utility. (p.6)

- ...the fundamental issue becomes one of justification and whether or not appropriate quantitative and qualitative data is available to the Board to determine the necessity and reasonableness of capital expenditures requested by the utility in meeting its legislative imperatives.” (p.7)
4. Accordingly, NP’s 2004 capital budget should be assessed against whether they have:
 - a. met the filing requirements of Schedule C;
 - b. provided a NPV calculation against other acceptable alternatives; and
 - c. as a result, demonstrated that the project as proposed is necessary and reasonable.
 5. Projects for which NP is seeking approval but for which they have not provided evidence of NPV comparisons against other acceptable alternatives, or which render negative net present values, may require additional justification.
 6. P.U. 36 (2002-2003) contains several other directions for the review of proposed capital projects that apply to NP only. For example, NP was given instructions to provide, with its next application, a five (5) year capital budget plan and an analysis of capital expenditures made during the previous ten (10) years (p.26).
 7. Accordingly, NP’s 2004 Capital Budget Application was filed under the requirements and directions provided by the Board in P.U. 36 (2002-2003) and it is against these indices that NP’s application should be measured.

Technical Capital Budget Conference

8. NP’s 2004 capital budget application marks what may be its last application under the existing rules and Board procedures.
9. In P.U. 36 (2002-2003), after acknowledging the concerns of the parties, the Board ordered NP to attend a technical conference where the issues of process and filing requirements for capital budget applications would be addressed
10. It is beyond the scope of this hearing, and certainly beyond the scope of this submission, to canvass the issues involved, or likely to be raised, in a generic capital budget conference. Interested parties, each arguing from their own vantage point, will, undoubtedly, have much to say, and write, concerning the evidentiary burden that should be met, the level and type of documentation that should be filed, the classification scheme that should be employed, and the various economic analysis that should be undertaken by the utility before proposing a capital project for approval under s. 41 of the *Public Utilities Act*. The Board has already identified some of the issues it feels should be addressed in the generic hearing (P.U. 36 (2002-2003), p. 9-10).

11. This does not however, preclude this Board panel from providing directions to NP concerning its current application. Nor does it impede this Board panel from exercising its jurisdiction as it sees fit.

Least Cost Consistent with Reliable Service

12. The principal goal of a utility's operations, including its capital budget process, is to deliver the lowest possible cost service consistent with reliable service. This requirement is mandated by s. 3 of the *Electrical Power Control Act*.

13. The EPCA states:

- s. 3(b) all sources and facilities for the production, transmission and distribution of power in the province should be managed and operated in a manner
 - (i) that would result in the most efficient production, transmission and distribution of power,
 - (ii) that would result in the consumers in the province having equitable access to an adequate supply of power,
 - (iii) that would result in the power being delivered at the lowest possible cost consistent with reliable service, and [remainder omitted]...

14. The relevant provisions of the *Public Utilities Act*, are as follows:

- s. 41(1) A public utility shall submit an annual capital budget of proposed improvements or additions to its property...and the budget shall includes an estimate of [CIAC].
- s. 41(2) The budget shall contain an estimate of future expenditures on improvements or additions to the property of the public utility that will not be completed in the next calendar year"
- s. 41(3) A public utility shall not proceed with the construction, purchase or lease of improvements or additions to its property [without the prior approval of the Board] where
 - (a) the cost of the construction or purchase is in excess of \$50,000; or
 - (b) the cost of the lease is in excess of \$5,000 in a year

- s.41(4) Not later than April 1, "A public utility shall submit a report on its actual capital expenditures on improvements or additions...in the prior calendar year, together with an explanation as to expenditures in excess of those approved under [s.41(1)]"

Projects

15. While no position, either for or against, a particular capital project will be taken here, as stated previously, the test that NP must meet, including the filing requirements for a capital budget application, have already been established by this Board.
16. However, direct comments will be made for illustrative purposes.

Financial Parameters

17. The Board noted in P.U. 36 (2002-2003) that "In examining NP's historic level of capital expenditures, the Board is, however, cognizant of the stepwise increase evidenced in certain years and the resulting new level of expenditures or trending established and continued in to the following years." (p.25)
18. The total proposed capital expenditure for 2004 is \$53,909,000. This amount is similar to the actual capital expenditures of the previous three years, but marks a significant increase from the level of expenditures during the period 1993 to 2000 inclusive (Vol I, 2004 Capital Budget Plan, Appendix B, p. 1 of 21)
19. On examination, Mr. Barry Perry confirmed that NP's department of finance does not provide direction to its departmental managers or Vice-President of Operations on the amount of capital expenditure that may be budgeted for a given year. (Transcript, September 12, 2003, p. 187, line 19)
20. Similarly, NP does not set any limit on the level of the capital expenditures for a given year (Transcript, September 12, 2003, p. 188, line 2) nor does it set any limit on how much a department can go over budget from approved (p. 195, line 21)
21. Mr. Perry explained that the capital budget process starts with a review of NP's "operations from a reliability standpoint" (p. 188, line 12) and that while management will challenge budget proposals near the end of the process (p. 189, line 2), he indicated that there was not a lot the finance group could offer if the Vice-President of Operations indicated that "...I got to do this amount for these various Hydro plants or transmission lines." (p. 190, line 15)

22. Accordingly, but not surprisingly, much of the capital budget process for NP is driven by identified requirements for plant upgrading and refurbishments. Fully, 56% of the 2004 proposed budget is allocated to replace deteriorated plant and equipment (Ludlow/Delaney pre-filed, p. 1, line 3), which amount is approximately the same as the depreciation expense incurred each year by the Company (Ludlow/Delaney pre-filed, p. 3, line 16)
23. It is submitted that while NP's department of finance does exercise some management over the domain, the capital budget process for NP is driven primarily by requirements identified by its various departments, such as engineering and customer service.

Improving Reliability

24. NP only sets reliability targets for the entire system (Transcript, September 11, p. 96, line 4).
25. NP confirmed in PUB 8 NP that it has not set reliability targets, either SAIFI, SAIDI or up-time, for 2004. Mr. Ludlow also confirmed on examination that the reliability targets for each year, including 2004, are not set until sometime in the Fall, as part of NP's Short Term Incentive program (Transcript, September 11, p. 81, line 1). However, many of the proposed projects are aimed at improving reliability.
26. This raises the issue of how NP determines where to focus its efforts at improving reliability.
27. It was offered by Mr. Ludlow that while the customer surveys would seem to indicate a general level of satisfaction with the reliability of the electrical system, some customers, on an individual basis, would likely not agree with the same position. (Transcript, September 11, p. 89-90)
28. For instance, NP is proposing to perform upgrades to its Weslyville feeder. This decision is based on an analysis of the feeder's performance over the last few years, indicating that it is operating at below the system reliability. However, NP does not set a target level of improvement that it hopes to achieve through the work to be performed.
29. At issue is whether NP should be expected to set a target level of improvement that will be achieved through these types of capital improvements.
30. A reliability target, matched to the nature of the project, would help the Board establish not only whether the project is, in a general sense, justifiable, but would also help to place a governor on the level of expenditure warranted. The open ended nature of the present budget process provides little guidance on the level

of expenditure that is justifiable, which is a different issue than whether the project is itself justifiable.

31. Would a 10% improvement in reliability bring the feeder to an acceptable standard? If so, how much money needs to be spent to meet the target.
32. The current, carte blanche approach to determining the level of expenditure for feeder or sub-station refurbishments, while likely to produce dramatic improvements in reliability (as evidenced in PUB ?? NP), may not be consistent with the EPCA mandated policy of providing the least cost reliable power.
33. The Board may want to take this in to account when assessing those projects that per PUB 9 NP have, as their principle justification, reliability.

IT

34. Historically, the IT department has been responsible for a low of 2.3% of the total budget (1994) to a high of 10.1% (2003F) (see Vol I, 2004 Capital Budget Plan, Appendix A, p. 2).
35. The Information Systems and Telecommunication budgets account for \$4,068,000, or roughly 7.5% of the total 2004 budget. The Company's IT department has 42 permanent employees and 1 temporary (NLH-85 NP).
36. As ordered by P.U. 36 (2002-2003), NP, along with its application, filed a document titled "Information Technology Strategy 2004-2008" (Vol I)
37. The IT budget is divided among 6 categories (excluding communication related expenditures; Vol I, Schedule B, p. 8), however, these budget categories can be re-conceptualized in to two – hardware (Network, Personal Computer and Shared Server Infrastructure) and software (Application Enhancements and Environment, and the CSS Replacement), although there is some cross over between the two (for instance, there are some software related expenditures in the Shared Server Infrastructure category). The software related expenditures account for \$2,372,000, or 60% of the total IT budget, with the remaining 40%, or \$1,576,000 of the proposed budget earmarked for hardware upgrades.

Hardware

38. Ultimately, the Company is in the best position to identify its IT requirements. However, at issue is "whether or not appropriate quantitative and qualitative data is available to the Board to determine the necessity and reasonableness of capital expenditures requested by the utility". (PU 36 (2002-2003))

39. For instance, the proposed budget for “Shared Server Infrastructure” (\$644,000), includes a \$414,000 provision for “Material” (NLH-86 NP), including \$100,000 for the purchase of 4 new full servers and 10 Blade servers to replace a total of 9 aging ones (NLH-84 NP). It would appear from the evidence that at least 6 of these aging servers, each being in excess of 6 years old, are no longer useful.
40. However, little information was provided on the nature of the servers to be purchased, including why the Company requires 14 new servers to meet its needs. Normally, a strategy document would provide some guidance on how these new servers will meet future requirements, and how they fit with the Company’s long term IT plan. Such an analysis would also offer where the aging servers are used. But other than stating that “Ongoing investment in the server infrastructure is required to ensure the continued availability of the applications, such as CSS, that reside on these servers.” (Vol I, “Information Technology Strategy”, p. 8) and that the annual expenditures over the period 2005 to 2008 will be expected to average \$705,000 (p.8), there is little detail to demonstrate a need on which the project could be justified.
41. The issue is not whether the Company needs to periodically upgrade its shared server environment in order to maintain the reliability of its IT network. Clearly, it does. However, similar to the issue surrounding the level of expenditures associated with conducting refurbishments of the Company’s distribution feeders, the shortcoming, if there is one, in the Company’s application is the lack of justification on the level of the proposed expenditure needed to maintain its shared server network.
42. A similar statement could be made about the proposed upgrading of the Company’s network infrastructure (B-74, \$393,000).
43. In response to a request to provide statistics on the reliability trends and capacity demands of the components to be replaced, NP responded by stating that “The objective of this project for 2004 is to replace the obsolete network components and avoid disruptions to network communications that will effect customer service.” (NLH-81 NP), itself a laudable and necessary goal. However, since, as indicated in the same reply, NP was unable to provide details on the level of reliability or capacity of the units to be replaced, it begs the question of how NP knew what, and how many new network components were required to meet the objective.
44. Stated another way, the justification of the project is one issue. The level of expenditure needed to meet the project goal is another.
45. The Board may wish to consider whether the level of detail offered by NP on certain aspects of the hardware portion of its IT budget, and its budget overall, provides the Board with the appropriate quantitative and qualitative data needed

to not only assess whether the project itself is necessary and reasonable, but whether the proposed level of expenditure is necessary and reasonable.

Software

46. It is the Company's position that "It is not generally possible to draw a link between an individual project metric and the overall level of customer service or overall cost reductions as so many different factors impact such measurements." (PUB 72 NP).
47. On examination, the Company's IT witnesses confirmed that there was no cost benefit analysis, or economic justification provided for a host of proposed projects (Environment Management Software (Transcript, September 12, 2003, p.77, line 11); Bar Coding (Transcript, p. 88, line 18); Crew Scheduling (Transcript, p. 98, line 16)
48. The reason given for the absence of a cost benefit analysis is that many of the projects either have both qualitative as well as quantitative benefits, the former of which do not lend themselves to an economic analysis (Transcript, September 12, 2003, p. 98, line 16), or that the expected benefits are derived from avoided costs, which again are difficult to quantify. (T, September 12, p. 84, line 20)
49. The Board may wish to consider whether the presence of qualitative benefits absolves the Company of the requirement to provide an economic analysis of the project or whether the Company was expected to provide a NPV calculation for each project whose identified benefits, or at least some of them, are cost based.

Proposed Remedy - failure to meet filing requirements

50. At issue is whether the Company has met the filing requirement mandated by P.U. 36 (2002-2003), in that has the Company provided the Board with an economic analysis, usually expressed as a NPV calculation, and a level of both qualitative and quantitative detail sufficient to assess the reasonableness and necessity of the projects as proposed, including the level of expenditure.
51. In the event that the Board concludes that NP has failed to meet the PU 36 filing requirements, it may wish to consider whether the project is needed immediately for reasons having to do with safety or the potential for catastrophic failure of the system. In the event there is no evidence that the project as proposed must proceed in this budget year, the Board may wish to consider ordering that the offending project be deferred to a subsequent capital budget application. This would allow the Company to re-apply to the Board, providing any further documentation that is required to justify the project and the level of expenditure.

Rate Base – Deferred Pension Charges

52. The Company's finance witnesses, Mr. Perry and Ms. Hutchens, were examined on the treatment of its deferred pension asset.
53. PU 19 (2003), the Board's decision stemming from NP's recent GRA, the Company was ordered to include deferred charges in its rate base. The 2003 fiscal year represents the first time the Company has done so.
54. As was noted by Mr. Perry on examination, the Board's financial advisors, Grant Thornton, have conducted a review of the Company's rate base calculations and found them to be in order and in compliance with P.U 19.
55. One item that is now included in the rate base by virtue of PU 19 that was not previously, is the deferred pension charge. Details of the deferred charge are provided in the "Changes in Deferred Charges 2003-2004" document found in Volume I.
56. The deferred pension charge arises due to a difference between the amount booked as a funding requirement and the amount allowed for expense purposes. When, as here, the funding requirement exceeds the expense, a deferred cost, amounting to an asset on which the Company is allowed to earn a return, is created. During the period 2000 to 2003, the Company's deferred pension charge grew by approximately \$7.5 million annually. These figures were reviewed as part of the Company's GRA and have been approved by the Board.
57. The Company's deferred pension charge is forecast to grow by another \$7 million for 2004, however, this number is subject to change depending on the outcome of the Company's next, actuarially determined pension funding requirements due in 2004, and effective January 1, 2004.
58. Accordingly, the amount booked for the deferred pension charge is an estimate only, and will not be fixed and determined until the Company's 2006 Capital Budget Application.
59. At issue is whether the approach taken by the Company to catch-up on any identified unfunded pension liability within the three year actuarial review period, as opposed to some longer period (up to 15 years are allowed under the Province's pension legislation) is reasonable. To that end, and in light of the fact that the next time the Board will be asked to fix and determine the Company's rate base when it includes untested deferred charges is in 2006, the Board may wish to consider asking its financial advisors to prepare a report on the accepted practice in this regard. If possible, the Board's financial advisors should canvass the approaches used by other Canadian utilities.

Dark Skies

60. Newfoundland is in a unique position in that most of our sky is yet to be obliterated by wasteful and poorly designed lighting. While many urban areas, most notably the cities of St. John's and Mount Pearl, are already experiencing levels of light pollution that are having a detrimental impact on our ability to see the night sky, many other areas are still light pollution free. This should be preserved for aesthetic reasons, economic reasons and efficiency reasons.
61. The Company currently uses less efficient high pressure sodium bulbs housed in light scattering drop-lens cobra head street lighting fixtures.
62. The Board may wish to consider asking NP to complete a study in which they would review the issues surrounding, and provide a cost-benefit analysis of, switching to more environmentally sensitive street lighting.

Dated at St. John's, Newfoundland, this 17th day of September, 2003.

Mark Kennedy
Board Hearing Counsel