

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-1**

Chapter:	P. Lee Direct Testimony	Page No.:	2 Lines 11-16
Topic:	Newfoundland & Labrador Board of Commissioners of Public Utilities - Proceeding Evidence		
Subtopic:			
Issue:	Depreciation		

PREAMBLE TO IR:

QUESTION:

- a) Please file P. Lee's direct evidence for the 2012 depreciation application proceeding of Newfoundland and Labrador.
- b) Please file a copy of Order No. P.U. 40(2012) issued by Newfoundland & Labrador Board of Commissioners of Public Utilities.

RATIONALE FOR QUESTION:

RESPONSE:

(a) and (b)

Please see Attachments 1 – 3 for the requested files, also available online:

<http://pub.nl.ca/applications/NLH2012Depreciation/files/reports/IC-ExpertReport-Oct3-12.pdf>

<http://pub.nl.ca/applications/NLH2012Depreciation/files/reports/IC-ExpertReport-Exhibit1-Oct4-12.pdf>

<http://pub.nl.ca/applications/NLH2012Depreciation/files/order/pu40-2012.pdf>

IN THE MATTER OF the *Electrical Control Act*, RSNL 1994, Chapter E-5.1 (the "EPCA") and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "Act"), as amended, and their subordinate regulations;

BEFORE THE NEWFOUNDLAND
AND LABRADOR BOARD OF
COMMISSIONERS OF PUBLIC
UTILITIES

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro pursuant to subsection 68 of the Act, for the approval of changes in depreciation methodology and assets service lives.

Direct Testimony

of

Patricia Lee

On behalf of

Island Industrial Customers

BCRI Valuation Services
808 Heatherwood Circle
Birmingham, AL 35244

October 3, 2012

IN THE MATTER OF the *Electrical Control Act*, RSNL 1994, Chapter E-5.1 (the "EPCA") and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "Act"), as amended, and their subordinate regulations;

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Patricia S. Lee. My address is 116 SE Villas Court, Unit C, Tallahassee, Florida 32303.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by BCRI Inc. as a BCRI associate.

Q. PLEASE DESCRIBE BCRI.

A. BCRI is a consulting and research company founded in 1998 by Stephen Barreca. The company specializes in assessing technological change and appraising utility property.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A. I graduated from Appalachian State University in Boone, North Carolina in December 1970, receiving a Bachelor's degree in mathematics. I was employed as a high school mathematics teacher from 1971-1974, when I began working in the area of statistical analysis for the State of Florida. I joined the Public Service Commission staff in 1978. While my position changed over the years, my areas of primary focus were depreciation and capital recovery. I also reviewed and analyzed cost studies for the purpose of determining unbundled network element prices and universal service cost levels as well as for the purpose of determining the appropriate nuclear decommissioning and fossil dismantlement annual accrual levels. In that regard, I was responsible for depreciation issues and other issues such as determining the appropriate cost

model inputs. I retired after over 30 years of service on September 30, 2011. In March 2012, I began working with BCRI Inc., d/b/a BCRI Valuation Services.

Q. WHAT WERE YOUR DUTIES AT THE FLORIDA PUBLIC SERVICE COMMISSION?

A. I reviewed, analyzed, and presented testimony and recommendation concerning depreciation rates and the capital recovery positions of Florida regulated utilities and the valuation of assets in a competitive market. In this capacity, I investigated, analyzed, and evaluated valuation and depreciation methods and concepts. The determination of appropriate depreciation lives and salvage values requires an understanding of the plans, needs, and pressures facing an individual company. It also requires knowledge of the various types of plant under study or review and the various factors impacting the depreciation parameters, such as competition and technological advancements.

I also assisted in the promulgation of Florida Public Service Commission rules regarding depreciation study requirements, depreciation sub-account requirements, capitalization and expensing requirements, and dismantlement and decommissioning study requirements. Additionally, I conducted various Public Service Commission staff training sessions regarding depreciation.

Additionally, I conferred with company officials, other state and federal agency personnel, and consulting firms on capital recovery matters in both the regulated and deregulated environments. On behalf of the Commission, I participated as a faculty member of the National Association of Regulatory Utility Commissioners (NARUC) Annual Regulatory Studies Program and as a trainer for the Society of Depreciation Professionals in the area of depreciation. I was also a member of the NARUC Staff Subcommittee on Depreciation and Technology. In this regard, I co-authored the NARUC 1996 Public utility Depreciation Practices manual and three

NARUC papers that addressed the impact of depreciation on infrastructure development, economic depreciation, and stranded investment. Two of these papers were published in the 1996-1997 and 1998 SDP Journals.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE?

A. Yes, I have. I proffered testimony in telecommunications, electric, and gas cases regarding depreciation-related issues before the Public Service Commission. A complete list of all dockets in which I was assigned or in which I presented testimony is currently be compiled and will be filed as Exhibit PSL-1 to this testimony.

Q. ON WHOSE BEHALF ARE YOU PROVIDING TESTIMONY IN THIS CURRENT PROCEEDING?

A. I am testifying on behalf of the Industrial Island Customers.

II. PURPOSE OF TESTIMONY AND SUMMARY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to provide the results of my review and analysis of Hydro's 2009 Depreciation Study.

Q. DO YOU HAVE ANY EXHIBITS ACCOMPANYING YOUR TESTIMONY?

A. Yes. Attached to my testimony is Exhibits PSL-1 and PSL-2.

Q. CAN YOU PROVIDE A BRIEF OVERVIEW OF THE RELATIVE DEPRECIATION-RELATED MATTERS IN THIS PROCEEDING?

A. Yes. In my testimony I will present the results of my analysis of Hydro's depreciation study. I will provide examples where the Company has understated its reserve and overstated its proposed depreciation rates and resulting estimated expenses. Considering the number of accounts involved, I only address five. This should not be taken to mean, however, that I agree with Hydro's proposals for the remaining accounts. Due to fact that Hydro was not forthcoming with adequate responses to the numerous requests for information, I focused on those accounts that appear to be the most egregious. My adjustments amount to approximately \$2 million additional decrease in annual depreciation expense as shown on Exhibit PSL-2.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. I will begin with a general background regarding the concept of depreciation, in which I will define and describe the nature and role of depreciation in a regulated electric company. This will be followed by a summary of my analysis. Finally, I will address the issues I have developed through my review as well as an analysis of certain account proposals.

III. GENERAL BACKGROUND

Q. PLEASE BRIEFLY EXPLAIN THE CONCEPT OF DEPRECIATION.

A. Depreciation is the mechanism through which regulated companies are allowed to include in their operating expenses a percentage of their investment in equipment and facilities used to provide service to the public. Depreciation rates are prescribed on the basis of estimates of the equipment's expected rate of loss in value due to known causes, including wear and tear, obsolescence, and changes in demand. Depreciation expense is part of a company's revenue

requirement and the accumulated depreciation (depreciation reserve) is a deduction from rate base.

Q. WHAT IS THE BASIC PURPOSE OF A DEPRECIATION STUDY?

A. The basic purpose of a depreciation study is to attain the proper depreciation expenses and accumulated reserve level. The prime concerns in developing depreciation rates are life, salvage, and reserve level. In the instant proceeding, Hydro is proposing zero percent net salvage. For this reason, net salvage is not an issue and will not be discussed. It is also important to understand that the life component of the depreciation rate involves the use of estimates and projections. As circumstances change and the company perceives a need to revise its depreciation rates, it behooves both the company and its customers to propose revised depreciation rates.

IV. SUMMARY

Q. PLEASE SUMMARIZE YOUR MAIN POINTS.

A. Hydro's 2009 depreciation study reflects a change 1) in depreciation methodology, 2) from unit depreciation to group depreciation using the average service life procedure applied using the remaining life technique, and 3) in account lives and Iowa Curve characteristics.

Q. BEFORE PRESENTING YOUR ANALYSIS OF HYDRO'S 2009 DEPRECIATION STUDY, ARE THERE ANY GENERAL OBSERVATIONS YOU WOULD LIKE TO MAKE?

A. Yes.

- On its face, Hydro's 2009 Depreciation Study is comprised mainly of a treatise on depreciation, results from statistical analysis, and a remaining life calculation. The study is devoid of any support or justification for the proposed life/curve combinations. Consequently, many requests for information were necessary in order to gather information that, at least in my opinion, should have been more appropriately filed with the study itself. This could have saved much time on the part of the company staff as well as intervenors in their review.
- Hydro is currently using the sinking fund method of depreciation but the calculations do not appear to be correct. The accumulated depreciation (depreciation reserve) is understated by the miscalculations.
- The 2009 Depreciation Study proposes moving to a straight-line average service life group procedure to determine depreciation rates asserting that this is a common method used by many companies in North America. On the same hand though, the company plans to apply the group depreciation rate to each unit of property within the group account. This is fundamentally inconsistent with the meaning of the group depreciation procedure.
- Hydro incorrectly ceases depreciation on an individual asset when it becomes fully depreciated regardless if the total account reserve is fully depreciated. Under the group depreciation procedure, individual assets within the group should continue to be depreciated until the reserve for the total account is fully depreciated.
- Hydro's proposed lives for many accounts are generally understated.

CHANGE IN DEPRECIATION METHODOLOGY

Q. WHAT DEPRECIATION METHODOLOGY IS HYDRO CURRENTLY USING AND WHAT METHODOLOGY IS IT PROPOSING?

A. Hydro currently uses the sinking fund method of depreciation for many assets and straight-line depreciation for some assets. It is proposing to move to straight-line depreciation for all assets.

Q. BRIEFLY EXPLAIN THE SINKING FUND METHOD OF DEPRECIATION.

A. The sinking fund method of depreciation is a decelerated method of depreciation in which annual depreciation expense in the early years of life are lower than later in life. An annuity rate is used and interest on the accumulation of depreciation or reserve is added. The formula for the annuity is $i/[(1+i)^n-1]$ where i is the interest rate and n is the life. This means that the net book balance times the annuity rate plus the return compounded annually will fully recover the invested capital in the item or account. Full recovery is achieved only if the interest on the reserve is added as part of the expense. The depreciation expense is the total accrual of the annuity plus interest. This is sometimes called the modified sinking fund method.¹

Q. CAN YOU GIVE AN EXAMPLE OF THE SINKING FUND?

A. Yes. Let's assume there is investment of \$1,000, the life is 5 years, and the interest rate is 10%. The annuity rate is therefore 9.51%.

¹ Public Utility Depreciation Practices, Compiled and Edited by Staff Subcommittee on Depreciation of The Finance and Technology Committee of the National Association of Regulatory Utility Commissioners, Published by National Association of Regulatory Utility Commissioners, pp. 59-61.

<u>Year</u>	<u>Annuity</u>	<u>Interest</u>	<u>Total Accrual</u>	<u>Reserve</u>
1	\$ 163.80	-	\$ 163.80	\$ 163.80
2	163.80	\$16.38	180.18	343.98
3	163.80	34.40	198.20	542.18
4	163.80	54.22	218.02	760.20
5	163.80	76.02	239.80	1,000.00

As is shown above, the \$1,000 is fully accrued when the interest on the reserve is included in the total depreciation accrual or expense. If interest on the reserve is not included, the \$1,000 will not be recovered at the end of the five year life. In fact, there will be an under-recovery of \$181, the amount of the interest that should have accumulated but did not.

Q. HAS HYDRO BEEN CALCULATING THE DEPRECIATION EXPENSE CORRECTLY IN ACCORD WITH THE SINKING FUND FORMULA?

A. From what I can glean from information request responses, no. In response to RFI CA-NLH-251, it appears as though Hydro calculates the annuity portion of the formula correctly but has not been adding the interest on the reserve for the total monthly or annual depreciation expense. For example, November 1985, the month annuity portion is \$0.14. I agree with this but the interest on the reserve should be calculated and added to the annuity to get the total depreciation expense. If done correctly, the depreciation expense would be \$0.15. Clearly the company is not including the interest on the reserve in the determination of depreciation expense.

Q. WHAT IS THE IMPACT OF NOT INCLUDING INTEREST ON THE RESERVE IN THE DEPRECIATION EXPENSE CALCULATION?

A. The impact is an understatement of depreciation expense as well as an understatement of reserve. In order to determine the magnitude of the understatements would require a recalculation of the depreciation expense and reserve correctly. Many of Hydro's accounts contain both items being depreciated using the sinking fund method as well as assets being depreciated using the straight-line method.² Considering the number of accounts in question as well as the number of items in each account and the number of months requiring a recalculation, I was not able to reconstruct the correct expense and reserve for each account. However, Hydro should be asked to review its records and provide the Board with options regarding a correction.

Q. ARE THERE OTHER CONCERNS YOU HAVE WITH HYDRO'S APPLICATION OF THE SINKING FUND METHOD?

A. Yes, another concern is that the monthly interest rate used in the annuity calculation was never revised to reflect lower interest rates or to reflect the weighted average cost of capital established in the 2002 General Rate Application. Once the sinking fund rate was assigned, Hydro did not change that rate for the full life of the asset, regardless of changes in high cost debt. (CA-NLH-252, CA-NLH-253, CA-NLH-254, and CA-NLH-255). Even though Hydro asserts that the weighted cost of capital began to be used in 2002 as the interest rate in the modified sinking fund calculation that only related to new projects, it has been the company's practice

² Additionally, some accounts have a portion of the assets that are currently depreciated using the sinking fund method and a portion that are depreciated using the straight-line method. (IC-NLH-74) This makes it extremely difficult for anyone, other than the Company, to recalculate the reserve with any certainty.

that once the sinking fund interest rate is established, that rate remains never changes, regardless if interest rates decrease or increase. (CA-NLH-252)

Q. WHAT IS THE REASON FOR CHANGING DEPRECIATION METHODOLOGIES FROM SINKING FUND TO STRAIGHT-LINE?

A. The sinking fund method of depreciation is not an acceptable depreciation method under International Financial Reporting Standards (IFRS). IFRS specifically forbids the use of any decelerated method of depreciation, such as the sinking fund, because such typically does not reflect the pattern in which an asset's future benefits are consumed.³ The method is marked with low depreciation expense in the early years increasing in the later years.

On the other hand, IFRS accepts the straight-line method of depreciation. IFRS has concluded that straight-line depreciation results in a constant rate over the useful life of the asset, thus closely reflecting the expected pattern of consumption of an asset's future benefits. Moreover, straight-line depreciation is the method most commonly used by North American regulated utilities. Because Hydro plans to implement IFRS in 2012, it must revise the depreciation methodology for financial reporting purposes.

It is my understanding that the Board approved Hydro's request to adopt IFRS for regulatory reporting purposes in Order No. P.U. 13 (2012) with principle-based exceptions. Implementing IFRS for regulatory purposes will eliminate the need for Hydro to maintain two separate sets of books.

³ IAS 16, paragraph 60, states "The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity."

Q. WHAT IS THE IMPACT OF MOVING FROM THE SINKING FUND METHOD OF DEPRECIATION TO THE STRAIGHT-LINE METHOD?

A. In response to information request IC-NLH-65, Hydro attests that the change in depreciation methodologies only would result in an increase in annual depreciation expense of approximately \$27.3 million in 2011.

Q. DO YOU HAVE ANY OTHER COMMENT REGARDING HYDRO'S IMPLEMENTATION OF IFRS FOR REGULATORY PURPOSES?

A. Yes. According to the response to Hydro's request IC-NLH-66, it restated the original cost of its assets to net book value on January 1, 2011 as part of implementing IFRS. The restatement put the depreciation reserve to zero. Hydro contends that restating original cost to net book value, and moving from sinking fund depreciation to a remaining life technique results in no change to depreciation expense. I disagree. Assume that a given account has investment at original cost of \$100,000 and a reserve of \$20,000. The restated cost is \$80,000 with zero reserve. Also assume for the sake of this example, that a remaining life of 50 years is approved. The remaining life depreciation rate is then calculated to be 1.6 percent $[(100\% - 20\%)/50 \text{ yrs}]$. Applying this rate to the original cost of \$100,000, results in annual depreciation expenses of \$1,600. However, if applied to the restated cost of \$80,000, the annual depreciation expenses are only \$1,280. Depreciation expenses are not the same. Moreover, the depreciation rate is understated.

With a restated zero reserve, the remaining life rate should be recalculated to 2.0 percent $[(100\% - 0\%)/50 \text{ yrs}]$. Applying this depreciation rate to the restated net book cost of \$80,000, results in annual depreciation expenses of \$1,600. Therefore, restating original cost to net book value and moving to a remaining life technique results in a change to depreciation expense

unless the depreciation rate is recalculated. Hydro fails to recognize this fact unless it is intentionally concealing information for which the Board should be aware.

Q. WHAT DO YOU RECOMMEND?

A. I would recommend that the Board have Hydro recalculate the depreciation rates and resulting expenses based on the Gannett Fleming study assuming the restatement of cost and reserve as illustrated in the example given to the previous question. This would give a more accurate picture of the estimated changes in annual depreciation expense resulting from revised depreciation rates and a restatement of cost. I would also recommend that Hydro be ordered to present this recalculation to the parties for review before the Board makes its determination regarding the appropriate lives and resulting depreciation rates.

In the alternative, the Board could ignore the fact that Hydro has restated its costs and go ahead and decide appropriate lives and resulting depreciation rates based on the study before it. In this case however, the Board should make clear that the lives and resulting remaining life rates it approves in this proceeding should be applied against the restated cost to yield the depreciation expense. The depreciation rates will not change until the Board revises depreciation rates again. If the Board decides to proceed with this alternative approach, then it should be recognized that the approved depreciation rates will be based on erroneous parameters of the reserve and cost.

Q. WHAT OTHER CHANGES HAS HYDRO MADE TO COMPLY WITH IFRS?

A. Hydro reviewed its account structure and componentized its assets into a number of revised accounts. (CA-NLH-59)

Q. DO YOU HAVE ANY COMMENT REGARDING HYDRO'S REVISED ACCOUNTS?

A. Companies establish groups or accounts of their property containing homogeneous items that are generally alike in character, used in the same manner, and operated under the same general conditions. However, even within these homogeneous groupings, there will be differences in the lives of the individual units. For example, let's look at Account P07 - Wood Poles. Hydro has componentized its wood poles in one account for IFRS purposes rather than combining them with other types of poles. However, not all the wood poles in this account will live the same. Some poles will retire because of storms or other casualties, some because of decay, and others for other causes of retirement.

DEPRECIATION SYSTEM MODEL

Q. Please describe a depreciation system model.

A. A depreciation system is comprised of a depreciation method, procedure, and technique.

Q. WHAT IS A METHOD OF DEPRECIATION?

A. A method of depreciation refers to the pattern of depreciation expense in relation to the accounting periods. The depreciation rate can be constant (straight-line), higher in the early years and lower in the later years (accelerated), or lower in the early years and higher in the later years (decelerated). As noted earlier, Hydro currently utilizes the sinking fund method of depreciation, a decelerated method. The company proposes a move to the straight-line method of depreciation.

Q. WHAT IS THE STRAIGHT-LINE METHOD?

A. Under the straight-line method of depreciation, a constant depreciation rate is applied to the gross or surviving plant balances. As the plant balances change from year to year, so will the resultant annual depreciation expenses.

The straight-line method is the method commonly used by regulated utilities for book depreciation purposes. A major reason for this is that the straight-line method is simple to implement and it closely matches the recovery of prudently invested capital to the period the related assets will be providing service to the public.

Q. WHAT IS A PROCEDURE?

A. A procedure generally refers to the grouping of assets. There are several grouping procedures such as the single unit, the broad group, and the vintage group, to name three. Under the single unit procedure, each unit of property is depreciated separately. At least in the United States, because this procedure requires separate record-keeping for each item of property, unit depreciation has been deemed not practical for most types of property.

Under the broad group procedure, all items within an account are considered to be one group. The Broad Group model treats each vintage in the homogeneous account or category as having the same life and salvage characteristics.⁴

⁴ Depreciation Systems, Frank K. Wolf and W. Chester Fitch, Iowa State University Press, Ames, Iowa, 1994, pp. 139-140.

Under the vintage group procedure, each vintage or placement year within the category is considered a separate group. This requires analyzing each vintage group separately to determine its average life; all vintages are composited to produce the average service life for the plant category.

Under the broad group and vintage group procedures, a constant annual depreciation rate based on the average life of all property in the group is applied to the surviving investment of the group. Some property will retire before the average life while there will be property within the group that will live longer than the average life. However, both short- and long-lived property have the same rate applied. Property having a life shorter than the average will not be fully depreciated by the time of retirement. Because the depreciation rate is based on the average life of the group, the under recovery of the early retirements will be offset by the over recovery of the longer lived assets. The result is that the group will be fully recovered by the time of the final retirement. The average life procedure treats each item of the group as though it is expected to live in the same fashion as the group average. While the items within the group will not actually live in the same fashion, the variances between the items offset each other and as a group it lives an average life.

Q. WHAT IS A TECHNIQUE?

A. A technique references the portion of the average life used in the depreciation calculation. There are two techniques commonly used – Whole Life and Remaining Life. Under the Whole Life technique, the estimated average service life of the category or account is used as the basis for the depreciation rate. However, to the extent the average service life is revised, the resultant depreciation rate cannot recover any inherent reserve imbalance. Under the Remaining Life technique, the undepreciated cost (original cost less reserve less applicable net

salvage) is recovered over the estimated remaining period of service. To the extent lives are revised, the remaining life rate will self-adjust to correct any reserve imbalance over the remaining life.

Q. WHAT IS THE FORMULA FOR THE REMAINING LIFE DEPRECIATION RATE?

A. The formula for straight-line remaining life depreciation is:

$$\frac{(100\% - \text{Future Net Salvage \%} - \text{Reserve \%})}{\text{Average Remaining Life}}$$

The numerator is a measure of the net cost yet to be recovered. From the formula, it is apparent that the reserve percentage has a significant impact on the resulting remaining life depreciation rate. In the instant case with Hydro, a zero net salvage is proposed for each account. (IC-NLH-69)

Q. WHAT PROCEDURE, METHOD, AND TECHNIQUE IS HYDRO USING?

A. Hydro proposes use of the straight-line average life procedure applied on a remaining life basis.

Q. PLEASE EXPLAIN THE AVERAGE LIFE PROCEDURE.

A. The average life procedure designs a depreciation rate based on the average life of all property within a given account or group. The rate is applied to the dollars surviving (plant balance) in the group or account.⁵

⁵ Depreciation Systems, Frank K. Wolf and W. Chester Fitch, Iowa State University Press, Ames, Iowa, 1994, pp. 74-75.

The average life is the life, on average, of all items in a group or account (i.e. all poles in the wood poles account.) By definition, given an average life, there are short-lived units (those that retire before the average life) and long-lived units (those that retire after the average life). In statistical terms, the group or account has an average life and the individual items in the account are distributed around that average.

GROUP DEPRECIATION VERSUS UNIT DEPRECIATION

Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN GROUP DEPRECIATION AND UNIT DEPRECIATION.

A. The difference between group and unit depreciation is based on the definition of the depreciable entity. Unit depreciation is when each unit is maintained in a separate group or account and depreciated by itself. A life is determined for each individual unit. On the other hand, if many similar assets are included in one group or account and depreciation is taken on the total cost of the group, then this is group depreciation. The mechanics of group depreciation are based on the notion of the statistical average of the lives of the various items included in the account and ignore each and every particular item's life.

Q. HOW DOES HYDRO PROPOSE TO APPLY THE DEPRECIATION RATES APPROVED IN THIS PROCEEDING?

A. Hydro is proposing to apply the remaining life approved in this proceeding to each asset as "just a function of 'ease of application.'" Hydro asserts that the resultant depreciation expenses are essentially the same whether the rate is applied to the total surviving plant investment of the account or applied to each individual asset with the account. Hydro states that this concept has been accepted in Canada by a number of regulatory bodies and notes that this approach will

eliminate the need to two sets of books – one financial reporting purposes and one for regulatory purposes. (IC-NLH-51)

Moreover, Hydro states that it currently uses unit depreciation for each of its 41,000 assets. The Company proposes to continue this procedure. Hydro asserts that it is converting to “group accounting” by changing the service lives for each asset to reflect the average remaining life of the applicable unit of property. (IC-NLH-19)

Q. HOW DO YOU RESPOND TO HYDRO'S PROPOSAL?

A. I refer to Hydro's response to CA-NLH-59 where it states the following:

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of the items within a group do not have identical service lives, but have lives that are dispersed over a range of time.

The information request response goes on to state:

In the average service life procedure, the rate of annual depreciation is based on the average life or average service life of the group, and this rate is applied to the surviving balance of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life. In this procedure, the accrued depreciation is based on the average service life of the group and the average remaining life of each vintage within the group derived from the area under the survivor curve between the attained age of the vintage and the maximum age.

Mr. Kennedy affirms in response to IC-NLH-4 that the depreciation method recommended in the 2009 Depreciation Study is the Average Service Life method.

I submit that the approach that Hydro describes and proposes is not the group depreciation concept. The group depreciation concept relates to how an "average" life for all property within a given group or account is determined. An "average" life does not relate to the life for each individual asset.

IFRS has found that the use of an average service life based on lowa curves or other generally accepted curves is compliant. Mr. Kennedy affirms that IFRS allows for the grouping of assets. (CA-NLH-60) Mr. Kennedy affirms that the depreciation method recommended in Gannett Fleming's 2009 Depreciation Study is the average service life method. (IC-NLH-4)

Based on the above, I submit that determination of life characteristics on a group basis is not appropriate to apply on an individual asset basis.

Q. HYDRO CLAIMS THAT IT IS REQUIRED UNDER GENERALLY ACCEPTED ACCOUNTING PRINCIPLES TO CEASE DEPRECIATION WHEN THE ITEM OR ASSET IS FULLY RECOVERED. DO YOU AGREE?

A. No, I do not agree. I suggest that the issue lies with what constitutes the depreciable base. Is it each individual item or is it the group or account that is comprised of many individual items? Where an average life and depreciation rate is established for the account, the measure of recovery is the reserve for the total account, not for each individual asset within the account. As long as the account reserve does not exceed the investment of the account, there is compliance with generally accepted accounting principles. Thus, depreciation of an asset within a group or

account should not cease depreciation unless the reserve for the entire group or account is fully recovered.

Q. HYDRO CLAIMS THAT APPLICATION OF AN AVERAGE SERVICE LIFE TO EACH ASSET WITHIN THE GROUP WILL RESULT IN A SIMILAR LEVEL OF DEPRECIATION EXPENSE. DO YOU AGREE?

A. Yes, but that is not the issue. The issue is that within the account there are units or items that have different life characteristics. Under the Company's proposal, an average life that is representative of all plant in the given account or group is assigned to each asset that may or may not live like the average. Under unit depreciation, a unique life for each and every asset within the account is determined and then applied to the given asset. I submit that the procedure proposed by the Company is not the group depreciation concept. It is using the group depreciation concept in the determination of life characteristics and applying that average life to each asset within the group or account. This is fundamentally incorrect.

V. LIFE ANALYSIS

Q. WHAT IS THE PURPOSE OF LIFE ANALYSIS?

A. Life analysis determines the appropriate mortality characteristics (average service life and retirement pattern) of a group or account. The primary purpose of a depreciation study is to determine the life and/or salvage for the depreciation rate calculation. Life analyses study retirements by age, defining the service life as well as the pattern of retirement.

Q. HOW ARE MORTALITY CHARACTERISTICS DETERMINED?

A. The average service life and retirement pattern are determined from a company's historical accounting records, using either actuarial or semi-actuarial analysis. Actuarial analysis requires aged data in which the age of each retirement is known. For example, \$20,000 that retired in 2009 was originally placed in service in 2000, thus it was 9.5 years of age when it retired. The original placements in 2000 are reduced by the \$20,000 retirement.

Q. HOW WERE THE LIFE CHARACTERISTICS DETERMINED IN THE 2009 DEPRECIATION STUDY?

A. Survivor curves were developed using actuarial or aged data. Aged data is when the vintage of the placements is known as well as the age of retirements and transfers. This data is used to develop the plant exposed to retirement. For example, aged data tells you that \$10,000 retired in 2000 was originally placed in 1970. The age of that retirement is therefore 30 years. Statistical analysis of the aged data using actuarial techniques results in an Observed Life Table. This table illustrates the rate of retirement over the period of data being analyzed (retirement dispersion or pattern), starting at 100 percent surviving at age 0 and ending at the last age in the band being analyzed. In most cases, this does not translate into a complete curve to 0 percent surviving because the account is still viable in that additions and retirement continue. This curve is called a "stub curve."

Standard curves (Iowa curves) are generally used to visually or mathematically smooth and extend the observed life table to a complete curve. The Iowa curves were developed at Iowa State College in the 1930s. They are designed to predict the retirement patterns of the property being studied based on past observations. The Iowa curves make the calculation of the average service life manageable. The results of any estimation are more reliable if 70 percent of an

observed life table is known and only 30 percent must be assumed. Unfortunately for many of Hydro's accounts, the stub curve indicates very few retirements with more than 80 percent and often times more than 90 percent surviving.⁶ This leaves a considerable amount of the curve to be estimated.

Q. WHAT IS A SURVIVOR CURVE?

A. A survivor curve is a graphical picture of the amount of property surviving at each age throughout the life of the property group. The graph plots the percents surviving on the y-axis and the age on the x-axis.

Q. WHAT IS A STUB CURVE?

A. A stub curve is an observed survivor curve that does not reach 0 percent surviving. In such a case, the observed survivor curve must be smoothed and extended to zero. The longer the stub, the more reliable the resulting curve fit. It is considered that reasonably good fits can be obtained for stub curves ending at 70 percent surviving or less. Longer stub curves with 40 percent or less surviving can be fit with a greater degree of accuracy.⁷ The average life of the property will only live in a given life-curve combination fashion if the future forces of retirement continue to follow that life-curve.

⁶ An observed life table indicating 90 percent surviving means that 90 percent of the curve must be estimated as there is only 10 percent actual retirement data.

⁷ Depreciation Systems, Frank K. Wolf and W. Chester Fitch, Iowa State University Press, Ames, Iowa, 1994, pp. 48-49. The more actual retirement data experienced, the lesser amount of the curve needed to be estimated.

ACCOUNT ANALYSIS:

ACCOUNT G03-GENERATORS

Q. WHAT DOES THE COMPANY PROPOSE FOR ACCOUNT G03 – GENERATORS?

A. The Company proposes a 60S4 life-curve combination resulting in an average remaining life of 36 years. (CA-NLH-9)

Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?

A. In the study itself, the Company provides no basis for its proposal. Only the observed life table, a survivor curve that supposedly visually fits the actuarial data and the remaining life calculation has been provided. There is absolutely no narrative explaining the thought processes used in arriving at the selected life-curve.

Q. WAS THE COMPANY REQUESTED TO PROVIDE THE BASIS AND JUSTIFICATION FOR THE SELECTED LIFE-CURVE COMBINATION?

A. Yes, this information was requested by the Consumer Advocate. More precisely, the Company was requested in RFI CA-NLH-87 to provide all information and documentation it believes is significant or meaningful for the determination of life characteristics. RFI CA-NLH-178 requested a list of capital projects currently planned that will result in retirements. RFI CA-NLH-179 requested support, justification, and documentation why this account's investment is not reasonably represented by a 70S4 life-curve combination.

Q. HOW DID THE COMPANY RESPOND TO THESE REQUESTS FOR INFORMATION?

A. No documentation in support of specific plans to retire the related assets was forthcoming. No information was provided regarding what specifically it believes is significant or meaningful to the determination of life characteristics. In fact, the response simply stated that the account was analyzed in total and asset specific detail was therefore not a consideration.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No. The stub curve indicates more than 95 percent of the investment surviving. It is my opinion that statistical analysis does not produce a reasonably good fit to the data, contrary to the view of Gannett Fleming. The Company appears to believe that because its proposed life represents a 20 percent increase from the previously studied life of 50 years that the data does not support anything longer. The Company asserts that a 70 year life "provides no better fit, and in fact discounts the observed retirement activity at age 27" and "is actually a less precise fit to the life table."

The Company's arguments are without merit. It is difficult to imagine that a longer life is a "less precise fit" given the very minimal retirement activity. Moreover, it should be noted that the retirement ratio at age 27 where the Hydro asserts the 70S4 life-curve combination discounts the retirements is less than one percent and the percent surviving is over 99 percent. Interestingly, Hydro apparently realizes that the life could indeed reasonably be longer as it states that if the indications of a longer life continue in future studies, then that would be the appropriate time for the adjustment. (RFI CA-NLH-179) I disagree with the "wait and see" attitude.

Looking at peer estimates for guidance, the range for the peer companies is 18 years to 75 years, averaging 45 years. (CA-NLH-180) Service life statistics of US companies show lives for generators ranging from 40 years to 100 years, averaging about 80 years. (CA-NLH-157, Attachment 1) A 70 year life is clearly in the range of life estimates of Canadian companies as well as US companies. Hydro has provided no justification or support for its proposed 60S4 life-curve combination. Recognizing the lack of retirement activity, I recommend a 70S4 life-curve combination as being clearly in the range of reasonableness and in line with the observed data.

Q. WHAT DO YOU RECOMMEND?

A. I recommend a 70S4 life-curve combination.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The resulting remaining life is 46 years and the remaining life depreciation rate is 1.35%. This equates to a decrease in annual depreciation expense of \$242,085, based on investments as of December 31, 2009 as shown on Exhibit 1 of the 2009 depreciation study, pp. III-3 and III-4. See also Exhibit PSL-2.

ACCOUNT P03-PENSTOCK

Q. WHAT DOES THE COMPANY PROPOSE FOR ACCOUNT P03-PENSTOCK?

A. The Company proposes a 70R4 life-curve combination resulting in an average remaining life of 42.4 years.

Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?

A. From the actuarial analysis, the Company assumes its proposed 70R4 life-curve combination. There have been no retirements during the observation period fitting the selected life-curve combination. Other than this, the study itself provided no basis for the Company's proposal.

From responses to requests for information, the Gannett Fleming asserts that discussions with Hydro's operations staff indicated that maintenance has historically been expensed resulting in no retirements. Gannett Fleming believes that penstock structures are likely to require capital upgrades in the future. Additionally, life estimates of peer Canadian companies range from 60 years to 100 years. The 70R4 life-curve combination provides a maximum life estimate of some investment to reach about 100 years and indicates that 55 percent of the investment will still be surviving at age 70. Mr. Kennedy avers that there is no evidence to suggest that penstocks can be expected to live longer than the maximum life underlying the 70R4 life-curve combination.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No I do not. The Company's life is understated. The penstocks owned by Avista Utilities have been in service for almost 100 years and are just being relined.⁸ While the relining may result in some investment retiring, the penstock itself will not retire and represents the majority of the account.

⁸ <http://lifelast.com/main/wp-content/uploads/2012/09/Avista-Utilities-Long-Lake-Hydro-Penstock-Rehab-Case-History-Web-Res.pdf>

It should also be noted that Mr. Kennedy did not provide alternative average service lives for Hydro's staff to review. He only provided his recommended scenario. It is not clear if the operations staff would have found an 85 year average service life just as reasonable because they simply were not asked. (CA-NLH-263; IC-NLH-80) Moreover, Hydro was unable to provide a reason supporting the position that an average service life greater than 70 years is not appropriate. (CA-NLH-97) Indeed, Mr. Kennedy admits that both a 90R4 life-curve combination, a 100R4 life-curve combination, as well as many other combinations would anticipate few retirements through the observation period and also provide a reasonable fit to the observed life table. (CA-NLH-163, 165) Mr. Kennedy asserts that the maximum life of the 70R4 life-curve combination is 107 years. He opines that maximum life indications are important due to the fact that some investment will be recovered over the period to the maximum life. (CA-NLH-167) Considering that it has been shown that penstocks can reasonably be expected to experience a life more than 100 years, a life longer than 70 years is warranted.

Q. WHAT DO YOU RECOMMEND?

A. I propose an 80R4 life-curve combination as a conservative estimate of the morality characteristics of penstocks. I base my recommendation on the fact that there have been no retirements in this account and the peer group ranges indicated lives more than 70 years. Considering that it has been shown that penstocks can reasonably be expected to experience a life more than 100 years, an 80R4 life-curve combination is very conservative and may warrant being increased further in the future.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. My recommendation yields an average remaining life of 53 years and a 1.60 percent remaining life depreciation rate. This equates to a decrease in annual depreciation expense of

\$223,695, based on investments as of December 31, 2009 as shown on Exhibit 1 of the 2009 depreciation study, pp. III-3 and III-4. See also Exhibit PSL-2.

ACCOUNT P10-POWERHOUSE

Q. WHAT DOES THE COMPANY PROPOSE FOR ACCOUNT P10-POWERHOUSE?

A. Hydro proposes a 75R3 life-curve combination for Account P10-Powerhouse resulting in an average remaining life of 51.6 years.

Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?

A. As with all other accounts, the Company's study provides no basis for its proposal. The study only shows the observed life table, a survivor curve that supposedly visually fits the data, and the remaining life calculation. There is absolutely no narrative explaining the thought processes used in arriving at the selected life-curve.

Q. WAS THE BASIS AND JUSTIFICATION FOR THE COMPANY'S SELECTED LIFE-CURVE COMBINATION REQUESTED?

A. Yes, this information was requested by the Consumer Advocate. Specifically, RFI CA-NLH-19 requested an explanation and justification for the selected 75R3 life-curve combination and why a longer life is not appropriate. RFI CA-NLH-108 specifically requested information that the Company believes is significant or meaningful to the determination of powerhouse life characteristics. RFIs CA-NLH-169 and CA-NLH-171 requested if a 90R3 or 100R3 life-curve combinations would provide a reasonable fit to the observed life table.

Q. HOW DID THE COMPANY RESPOND TO THESE REQUESTS FOR INFORMATION?

A. Basically, the Company asserts that powerhouses are susceptible to being relocated and renovated due to increased capacity demand, changes in technology, or age. For this reason, the Company believes that powerhouses are expected to experience lives shorter than that of Account D01-Dams. (CA-NLH-265)

Mr. Kennedy recognizes that this account has not experienced any retirement activity during the 1991-2009 periods. He notes that in discussions with the Company's operations group, it was determined that maintenance on these facilities has historically been expensed. The view is that powerhouse structures will eventually require capital upgrades. Given that most of Hydro's investment in this account took place some 20 years ago, Mr. Kennedy asserts that the 75R3 proposed life-curve combination reflects that this investment would still be in service so is appropriate. (CA-NLH-109)

Additionally, Mr. Kennedy responds that the powerhouse investment was studied in total rather than on an individual asset basis and therefore asset-specific information was not a consideration. The Company provided no information it believes is significant or meaningful to the determination of life characteristics for this account.

With respect to whether a 90 year or 100 year life would provide a reasonable fit to the observed data, Gannett Fleming affirms that both would provide a reasonable fit. However, it notes that where there is minimal retirement activity, reliance on the views of Hydro's operations staff and peer analysis become primary factors in the life determination process. Mr. Kennedy asserts that at the time of the depreciation study, only one Canadian utility had a life estimate of more than 75 years, indicating a maximum life of 127 years when used with an R3 curve shape.

From this, Mr. Kennedy concludes that a life estimate indicating a maximum life greater than 150 years is not appropriate.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No, I do not. According to Hydro, most of its powerhouses are physically separate structures from the dams. (CA-NLH-265) Of the eight identified powerhouses, seven are constructed of reinforced concrete and steel and one is constructed of steel. (CA-NLH-267) The account has not experienced any retirement activity during the 1991-2009 periods. The life of a concrete and steel powerhouse should be expected to live far longer than a brick structure. Given proper construction and maintenance, brick powerhouses are expected to experience lives in the range of 50 years to 75 years. Reinforced concrete and steel should be expected to live longer than this.

The stub curve indicates more than 99 percent of the investment surviving. It is my opinion that these statistical analysis results do not produce a reasonably good fit to the data, contrary to the view of Gannett Fleming. The Company asserts that its proposed life-curve combination anticipates very few retirements through the observation period and so provides a reasonable fit to the observed life table. The Company also admits that both a 90R3 and 100R3 life-curve combinations would provide a reasonable fit to the observed life table. In fact, as acknowledged by Mr. Kennedy, a number of life-curve combinations would provide an equally good fit simply because of the lack of retirement activity.

RFI CA-NLH-10 and 169 state the sources of information that Mr. Kennedy reviewed in the determination of the proposed 75R3 life-curve combination:

- The results of the retirement rate actuarial analyses;

- A peer review of comparable Canadian Electric Utilities;
- Discussions with Hydro's operations, engineering, and management staff;
- IFRS provisions and requirements; and
- Mr. Kennedy's experience in performing depreciation studies.

For powerhouses, the results of the actuarial analyses are meaningless for the determination of life given the lack of retirement activity. The average age of the account is about 24 years. The 75R4 life-curve combination indicates that at age 24, approximately two to three percent of the investment has retired. This is not the case as shown by the graphic representation in CA-NLH-109, Attachment 1. At about 43 years of age, the actuarial data indicates less than one percent of the account's investment has retired; the 75R3 life-curve combination implies nearly 10% retirements. Mr. Kennedy argues that maintenance has historically been expensed with no retirements recorded but, on a going forward basis, retirements will be booked. Powerhouse upgrades and possible relocations will result in retirement activity. However, when asked for the experience that led to this conclusion, that information was not forthcoming. Additionally, Gannett Fleming has been unable to explain why the experience as it relates to upgrades would not also apply reasonably to 90R3 and 100R3 life-curve combinations. Indeed, no information and documentation the Company believed significant or meaningful to the determination of the life-curve combination was provided even though it was requested. Furthermore, Hydro was unable to provide any support for the position that a life greater than 75 years is not appropriate. (CA-NLH-108) Hydro confirmed that both the 90R3 and 100R3 anticipate few retirements and provide a reasonable fit to the observed life table. Mr. Kennedy asserts that based on the Canadian peer group information, a life-curve combination indicating a maximum life greater than 150 years is not appropriate. (CA-NLH-171)

The majority of the investment in this account is associated with the building or structure itself. As with any building structure, items such as instrumentation, controls, water level equipment, ventilation, air conditioning systems, and sprinkler systems are subject to being replaced over the long haul. These items represent only a relatively small portion of the investment. Moreover, upgrades may or may not include the retirement of existing items. (IC-NLH-79) Even so, any retirements should be of relatively small value.

The range of the life estimates of the peer group range from 65 years to 100 years. The range of life estimates of US companies is 65 years to 130 years, averaging about 95 years. (CA-NLH-156, Attachment 1)

Recognizing the lack of retirement activity, but estimating a maximum life of less than 150 years as Mr. Kennedy asserts would be valid, I recommend an 85R3 life-curve table. The 85 years is within the range of the peer groups and the life-curve combination indicates a maximum life of 143 years.

Q. WHAT IS YOUR RECOMMENDATION?

A. Based on the above analysis, I recommend an 85R3 life-curve combination.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The resulting average remaining life is 62 years with a remaining life depreciation rate of 1.39%. This equates in a decrease in annual depreciation expense of \$257,722, based on investments as of December 31, 2009 as shown on Exhibit 1 of the 2009 depreciation study, pp. III-3 and III-4. See also Exhibit PSL-2.

ACCOUNT R13 - ROADS

Q. WHAT DOES THE COMPANY RECOMMEND FOR ACCOUNT R13 – ROADS?

A. The Company proposes a 50R4 life-curve combination.

Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?

A. Gannett Fleming states that there has been no retirement activity in this account during the observation period. It then states that, under IFRS, partial retirements should occur in the future with capital upgrades.

Gannett Fleming identifies two peer companies that use an average service life of 40 years. It concludes that a shortened life for this account is not reasonable so therefore proposes to maintain a 50-year average service life with an R4 lowa curve shape.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No I do not. The Company's proposal is artificially short. I recommend a 65R4 life-curve combination.

Q. WHAT IS THE BASIS OF YOUR RECOMMENDATION?

A. Investments in roads can and do live longer than 50 years. The lack of retirement activity, as recognized by the Company, indicates longer life spans for such investments. While there may be partial or interim retirements in the future due to upgrades, so much of that is dependent on the upgrade. (IC-NLH-79) If the roads need to widen or the embankments need to be repaired due to erosion problems due to the elements, this will logically result in capital dollars but the

associated retirements I submit will be very small. Indeed, 75 percent of this account's investment is associated with providing access to the CAT Arm powerhouse. These roads were originally placed in 1985 and there is no reason to conclude that they will retire until after the power plant at that location ceases providing service. It is logical to conclude that there will always be a CAT Arm power plant absent a compelling and prudent reason to move the plant to a different location. Indeed, there is no evidence that Hydro has ever moved a power plant. Additionally the range of estimated lives for Canadian companies includes two companies with average service lives of 75 years⁹ and the range of lives for US companies is 55 years to 100 years.¹⁰ While it can be argued that the environmental conditions might be different between US company roads and Canadian company roads, I submit that the Florida environmental conditions are also severe due to hurricanes, heat, and salt from the ocean. This data demonstrates that the Company's proposed 50 year average service life is understated.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. The resulting average remaining life is 41 years with a remaining life depreciation rate of 2.32%. This equates in a decrease in annual depreciation expense of \$1,061,005. based on investments as of December 31, 2009 as shown on Exhibit 1 of the 2009 depreciation study, pp. III-3 and III-4. See also Exhibit PSL-2.

⁹ The average service lives relate to roads for hydraulic plant. The range of lives for Canadian companies also includes a life of 40 years for transmission roads.

¹⁰ For example, Florida Power and Light Company currently has a 65-year average service life for transmission Roads (Docket No. 080677), Florida Progress Company has a 90-year life (Docket No. 090079), Tampa Electric has a 65-year life (Docket No. 110131), Gulf Power Company has a 55-year life (Docket No. 090319.)

ACCOUNT R12 – RIGHTS-OF-WAYS

Q. WHAT DOES THE COMPANY PROPOSE FOR ACCOUNT R12 – RIGHTS-OF-WAYS?

A. Hydro proposes a 55R4 life-curve combination for Account R12, Rights-of-Ways.

Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?

A. The Company performed actuarial analyses on its rights-of-ways investment, but admits that, because of insufficient retirements, the life estimate could not be selected on the basis of that analysis alone. (CA-NLH-116) It goes on to state that it relied on the life estimates of the Canadian company peer group that range from 36 years to 75 years, the previously recommended life estimate of 45 years, and the operations staff views that a 45 year to 50 year life would be reasonable. Based on these things, it concludes that a life no longer than 55 years is appropriate.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?

A. No. While rights-of-ways and easements for new transmission lines can be obtained, Hydro has been attempting to obtain formalized easements for some time. It is my understanding that 99 percent of the easements are obtained from the government. Once easements are obtained, existing companies tend to continue to rely on them, renewing as needed. There is no evidence that easements are not renewed or will not be renewed. Moreover, the Company's proposal for this account has a shorter maximum life than it does for some of the equipment that resides on it. This is illogical on its face.

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend a 75R4 life-curve combination. My recommendation is based on a life equal to the maximum life of the equipment that is installed on it. For example, if the maximum life for overhead facilities located on the easements is more than 90 years, then it follows that easements must be in place for at least that long. Replacing and upgrading transmission lines should use the same easements currently in place. The leases are renewed periodically unless the rights are perpetual, something most companies have these days. The Company implies that lease renewals will result in retirements. I disagree. The cost of the renewal is generally minimal and is expensed, not capitalized. The lease may be for 50 years but that does not mean that it will not be renewed. I have never heard of easement leases not being renewed. Indeed, the Company admits that it has no plans to retire any easements. (CA-NLH-195)

The operations staff was simply provided the Gannett Fleming proposed life-curve combination and asked their opinion on reasonableness. It is unknown what that entailed since it was not based on any specific documentation, simply a reliance on Mr. Kennedy's proposal. (CA-NLH-191; IC-NLH-80) Additionally, the operations staff was not specifically requested to review alternative life-curve combinations. (CA-NLH-191; IC-NLH-80) To this end, we do not know if they would have found other life scenarios reasonable. Moreover, Gannett Fleming's notes from interviews with operations staff are void of any reference to rights-of-ways. (CA-NLH-12, Attachment 1; CA-NLH-268)

The range of life estimates of the peer group is 36 years to 75 years with most having 75 years. (CA-NLH-116; CA-NLH-190) Recognizing the lack of historical retirement activity and the fact that the Company has no future retirement plans, I recommend a conservative 75R4 life-curve

combination. Certainly, the life could reasonably be estimated greater than 75 years given that the property associated with these rights-of-ways has a maximum life greater than 90 years.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?

A. My recommendation results in an average remaining life of 49 years and a remaining life depreciation rate of 1.36 percent. This equates to a decrease in annual depreciation expense of \$166,520, based on investments as of December 31, 2009 as shown on Exhibit 1 of the 2009 depreciation study, pp. III-3 and III-4. See also Exhibit PSL-2.

VI. CONCLUSION

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes, it does.

Exhibit PSL-1

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

TO BE FILED LATER

Exhibit PSL-2

NEWFOUNDLAND AND LABRADOR HYDRO
 ISLAND INDUSTRIAL CUSTOMERS RECOMMENDATION
 RELATED ESTIMATED ORIGINAL COST AT DECEMBER 31, 2009

ACCOUNT	SURVIVOR CURVE	ORIGINAL COST AT December 31, 2009 *	BOOK DEPRECIATION RESERVE *	FUTURE ACCRUALS *	ACCRUAL AMOUNT	DEPRECIATION RATE	COMPOSITE REMAINING LIFE
G03 GENERATORS	70-S4	64,312,110.88	24,318,003	39,994,108	868,213	1.35	46.0
P03 PENSTOCK	80-R4	56,215,065.27	8,625,533	47,589,532	899,441	1.60	53.0
P10 POWERHOUSE	85-R3	93,181,235.98	13,007,098	80,174,138	1,295,219	1.39	62.0
R12 RIGHT-OF-WAYS	75-R4	18,020,542.37	5,989,582	12,030,960	245,079	1.36	49.0
R13 ROADS	65-R4	80,846,786.54	3,979,048	76,867,739	1,875,645	2.32	41.0
		312,575,741.04	55,919,264.00	256,656,477.04	5,183,598.55		

NEWFOUNDLAND AND LABRADOR HYDRO
 HYDRO RECOMMENDATION
 RELATED ESTIMATED ORIGINAL COST AT DECEMBER 31, 2009

ACCOUNT	SURVIVOR CURVE	ORIGINAL COST AT December 31, 2009 *	BOOK DEPRECIATION RESERVE *	FUTURE ACCRUALS *	ACCRUAL AMOUNT	DEPRECIATION RATE	COMPOSITE REMAINING LIFE
G03 GENERATORS	60-S4	64,312,110.88	24,318,003	39,994,108	1,110,298	1.73	36.0
P03 PENSTOCK	70-R4	56,215,065.27	8,625,533	47,589,532	1,123,136	2.00	42.4
P10 POWERHOUSE	75-R3	93,181,235.98	13,007,098	80,174,138	1,552,941	1.67	51.6
R12 RIGHT-OF-WAYS	55-R4	18,020,542.37	5,989,582	12,030,960	411,599	2.28	29.2
R13 ROADS	50-R4	80,846,786.54	3,979,048	76,867,739	2,936,650	3.63	26.2
		312,575,741.04	55,919,264.00	256,656,477.04	7,134,624.00		

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* 2009 Depreciation Study, Exhibit 1, pp. III-4 and III-5.

IN THE MATTER OF the *Electrical Control Act*, RSNL 1994, Chapter E-5.1 (the "EPCA") and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "Act"), as amended, and their subordinate regulations;

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro pursuant to subsection 68 of the Act, for the approval of changes in depreciation methodology and assets service lives.

BEFORE THE
NEWFOUNDLAND AND
LABRADOR BOARD OF
COMMISSIONERS OF PUBLIC
UTILITIES

Direct Testimony

of

Patricia Lee

On behalf of

Island Industrial Customers

BCRI Valuation Services
808 Heatherwood Circle
Birmingham, AL 35244
October 3, 2012

Exhibit PSL-1

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

2011

Docket 110233 -- Petition for approval of 2011 Depreciation Study by Sebring Gas Systems, Inc.

Docket 110207 -- 2011 depreciation study by Florida Public Utilities Company.

Docket 110131 -- Petition for approval of 2011 depreciation study and annual dismantlement accrual amounts by Tampa Electric Company.

2010

Docket 100461 -- Petition for approval of nuclear decommissioning cost study, by Progress Energy Florida, Inc.

Docket 100458 -- Petition for approval of 2010 nuclear decommissioning study, by Florida Power & Light Company.

Docket 100368 -- Request for approval to initiate depreciation of a Landfill Gas to Energy Facility in Escambia County by Gulf Power Company.

Docket 100136 -- Petition for approval of an accounting order to record a depreciation expense credit, by Progress Energy Florida, Inc.

2009

Docket 090403 -- Request for approval to begin depreciating West County Energy Center Units 1 and 2 combined cycle units using whole life depreciation rates currently approved for Martin Power Plant Unit 4, by Florida Power & Light Company.

Docket 090319 -- Depreciation and dismantlement study at December 31, 2009, by Gulf Power Company.

Docket 090144 -- Petition for limited proceeding to include Bartow repowering project in base rates, by Progress Energy Florida, Inc.

Docket 090130 -- 2009 depreciation and dismantlement study by Florida Power & Light Company.

Docket 090125 -- Petition for increase in rates by Florida Division of Chesapeake Utilities Corporation.

Docket 090079 -- Petition for increase in rates by Progress Energy Florida, Inc.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

2008

Docket 080677 -- Petition for increase in rates by Florida Power & Light Company.

Docket 080548 -- 2008 depreciation study by Florida Public Utilities Company.

Docket 080366 -- Petition for rate increase by Florida Public Utilities Company.

Docket 080317 -- Petition for rate increase by Tampa Electric Company.

2007

Docket 070736 -- Petition by Intrado Communications, Inc. for arbitration of certain rates, terms, and conditions for interconnection and related arrangements with BellSouth Telecommunications, Inc. d/b/a AT&T Florida, pursuant to Section 252(b) of the Communications Act of 1934, as amended, and Sections 120.80(13), 120.57(1), 364.15, 364.16, 364.161, and 364.162, F.S., and Rule 28-106.201, F.A.C.

Docket 070699 -- Petition by Intrado Communications, Inc. for arbitration of certain rates, terms, and conditions for interconnection and related arrangements with Embarq Florida, Inc., pursuant to Section 252(b) of the Communications Act of 1934, as amended, and Section 364.162, F.S.

Docket 070671 -- Petition for approval to eliminate intraLATA toll customer contact protocols, by Verizon Florida LLC.

Docket 070646 -- Petition for approval to revise customer contact protocol by BellSouth Telecommunications, Inc. d/b/a AT&T Florida.

Docket 070552 -- Petition and complaint for expedited proceeding or, alternatively, petition and complaint or petition for declaratory statement, by MetroPCS Florida, LLC, requiring BellSouth Telecommunications, Inc. d/b/a AT&T Florida d/b/a AT&T Southeast; TDS Telecom d/b/a TDS Telecom/Quincy Telephone; Windstream Florida, Inc.; Northeast Florida Telephone Company d/b/a NEFCOM; GTC, Inc. d/b/a GT Com; Smart City Telecommunications, LLC d/b/a Smart City Telecom; ITS Telecommunications Systems, Inc.; and Frontier Communications of the South, LLC, to submit agreements for transit services provided by AT&T Florida for approval.

Docket 070408 -- Petition by Neutral Tandem, Inc. and Neutral Tandem-Florida, LLC for resolution of interconnection dispute with Level 3 Communications, LLC, and request for expedited resolution.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 070295 -- Request for approval of traffic termination agreement between Neutral Tandem-Arizona, LLC, Neutral Tandem-Colorado, LLC, Neutral Tandem-Florida, LLC, Neutral Tandem-Georgia, LLC, Neutral Tandem-Maryland, LLC, Neutral Tandem-Nevada, LLC, Neutral Tandem-South Carolina, LLC, Neutral Tandem-Tennessee, LLC, Neutral Tandem-Texas, LLC, Neutral Tandem-Virginia, LLC, Neutral Tandem-Washington, D.C., LLC, and Xspedius Management Co. Switched Services, LLC, Xspedius Management Co. of D.C., LLC, and Xspedius Management Co. of Virginia, LLC.

Docket 070295 -- Request for approval of traffic termination agreement between Neutral Tandem-Arizona, LLC, Neutral Tandem-Colorado, LLC, Neutral Tandem-Florida, LLC, Neutral Tandem-Georgia, LLC, Neutral Tandem-Maryland, LLC, Neutral Tandem-Nevada, LLC, Neutral Tandem-South Carolina, LLC, Neutral Tandem-Tennessee, LLC, Neutral Tandem-Texas, LLC, Neutral Tandem-Virginia, LLC, Neutral Tandem-Washington, D.C., LLC, and Xspedius Management Co. Switched Services, LLC, Xspedius Management Co. of D.C., LLC, and Xspedius Management Co. of Virginia, LLC.

Docket 070127 -- Petition for interconnection with Level 3 Communications and request for expedited resolution, by Neutral Tandem, Inc.

2006

Docket 060767 -- Petition of MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services for arbitration of disputes arising from negotiation of interconnection agreement with Embarq Florida, Inc.

Docket 060644 -- Petition to recover 2005 tropical system related costs and expenses, by Embarq Florida, Inc.

Docket 060598 -- Petition to recover 2005 tropical system related costs and expenses, by BellSouth Telecommunications, Inc.

Docket 060479 -- Petition by Verizon Florida Inc. for resolution of dispute with XO Communications Services, Inc. concerning non-UNE transport facilities retained at UNE prices.²

Docket 060296 -- Referral by the Circuit Court of Baker County, Florida to determine whether or not Southeastern Services, Inc. is legally responsible for payment to Northeast Florida Telephone for originating intrastate access charges under Northeast Florida Telephone's Public Service Commission approved tariff for the long distance calls provided by Southeastern Services, Inc. as alleged in the Amended Complaint.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 060083 -- Complaint of Northeast Florida Telephone Company d/b/a NEFCOM against Southeastern Services, Inc. for alleged failure to pay intrastate access charges pursuant to NEFCOM's tariffs, and for alleged violation of Section 364.16(3)(a), F.S.

2005

Docket 050419 -- Petition by MCImetro Access Transmission Services LLC d/b/a Verizon Access Transmission Services for arbitration of certain terms and conditions of proposed interconnection agreement with BellSouth Telecommunications, Inc.

Docket 050297 -- Emergency petition by Saturn Telecom Services Inc. d/b/a STS Telecom to require BellSouth Telecommunications, Inc. to allow additional lines and locations to STS's embedded base, and for expedited relief.

Docket 050172 -- Emergency petition of Ganoco, Inc. d/b/a American Dial Tone, Inc. for Commission order directing Verizon Florida Inc. to continue to accept new unbundled network element orders pending completion of negotiations required by "change of law" provisions of interconnection agreement in order to address the FCC's recent Triennial Review Remand Order (TRRO).

Docket 050119 -- Joint petition by TDS Telecom d/b/a TDS Telecom/Quincy Telephone; ALLTEL Florida, Inc.; Northeast Florida Telephone Company d/b/a NEFCOM; GTC, Inc. d/b/a GT Com; Smart City Telecommunications, LLC d/b/a Smart City Telecom; ITS Telecommunications Systems, Inc.; and Frontier Communications of the South, LLC ["Joint Petitioners"] objecting to and requesting suspension and cancellation of proposed transit traffic service tariff filed by BellSouth Telecommunications, Inc.

Docket 050059 -- Petition to reform unbundled network element (UNE) cost of capital and depreciation inputs to comply with Federal Communications Commission's guidance in Triennial Review Order, by Verizon Florida Inc.

2004

Docket 041338 -- Joint petition by ITC^DeltaCom Communications, Inc. d/b/a ITC^DeltaCom d/b/a Grapevine; Birch Telecom of the South, Inc. d/b/a Birch Telecom and d/b/a Birch; DIECA Communications, Inc. d/b/a Covad Communications Company; Florida Digital Network, Inc.; LecStar Telecom, Inc.; MCI Communications, Inc.; and Network Telephone Corporation ("Joint CLECs") for generic proceeding to set rates, terms, and conditions for hot cuts and batch hot cuts for UNE-P to UNE-L conversions and for retail to UNE-L conversions in BellSouth Telecommunications, Inc. service area.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 041269 -- Petition to establish generic docket to consider amendments to interconnection agreements resulting from changes in law, by BellSouth Telecommunications, Inc.

Docket 040927 -- Complaint of Saturn Telecommunications Services, Inc. d/b/a STS Telecom against BellSouth Telecommunications, Inc. for declaratory relief regarding BellSouth's request for amendment pursuant to "change of law" provision of interconnect agreement.

Docket 040530 -- Petition for expedited ruling requiring BellSouth Telecommunications, Inc. and Verizon Florida Inc. to file for review and approval any agreements with CLECs concerning resale, interconnection, or unbundled network elements, by Florida Competitive Carriers Association, AT&T Communications of the Southern States, LLC d/b/a AT&T, MCI metro Access Transmissions Services LLC, and MCI WorldCom Communications, Inc.

Docket 040520 -- Emergency petition seeking order requiring BellSouth Telecommunications, Inc. and Verizon Florida Inc. to continue to honor existing interconnection obligations, by the Florida Competitive Carriers Association, AT&T Communications of the Southern States, LLC, MCI metro Access Transmission Services, LLC, and MCI WorldCom Communications, Inc.

Docket 040489 -- Emergency complaint seeking order requiring BellSouth Telecommunications, Inc. and Verizon Florida Inc. to continue to honor existing interconnection obligations, by XO Florida, Inc. and Allegiance Telecom of Florida, Inc. (collectively, Joint CLECs).

Docket 040156 -- Petition for arbitration of amendment to interconnection agreements with certain competitive local exchange carriers and commercial mobile radio service providers in Florida by Verizon Florida Inc.

2003

Docket 031125 -- Complaint against BellSouth Telecommunications, Inc. for alleged overbilling and discontinuance of service, and petition for emergency order restoring service, by IDS Telecom LLC.

Docket 031047 -- Request for approval of interconnection agreement between Sprint-Florida, Incorporated, KMC Telecom III LLC, KMC Telecom V, Inc. and KMC Data LLC.

Docket 030852 -- Implementation of requirements arising from Federal Communications Commission's triennial UNE review: Location-Specific Review for DS1, DS3 and Dark Fiber Loops, and Route-Specific Review for DS1, DS3 and Dark Fiber Transport.

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UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 030851 -- Implementation of requirements arising from Federal Communications Commission's triennial UNE review: Local Circuit Switching for Mass Market Customers.

Docket 030715 -- Proposed amendment of Rule 25-30.140, F.A.C., Depreciation.

Docket 030714 -- Proposed adoption of Rule 25-6.04364, F.A.C., Electric Utilities Dismantlement Studies.

Docket 030558 -- Request for approval of revised fossil dismantlement studies by Florida Power & Light Company.

Docket 030512 -- Request for approval to begin depreciating Fort Myers Combustion Turbines 3A and 3B using whole life depreciation rates currently approved for Martin Power Plant, Unit No. 4, by Florida Power & Light Company.

Docket 030409 -- Petition for approval of 2003 depreciation study by Tampa Electric Company.

Docket 030222 -- Request for approval of change in depreciation rates to be implemented as of 10/1/03, by City Gas Company of Florida.

Docket 030139 -- Request for approval to begin depreciating Sanford Unit No. 4 using whole life depreciation rates currently approved for Martin Power Plant, Unit No. 4, by Florida Power & Light Company.

Docket 030048 -- 2003 depreciation study for Indiantown Gas Company.

2002

Docket 021014 -- Petition for approval to amortize gain on sale of property by Florida Public Utilities Company.

Docket 020943 -- Petition for approval of Agreement for Purpose of Ensuring Compliance with Ozone Ambient Air Quality Standards between Gulf Power Company and Florida Department of Environmental Protection pursuant to Section 366.8255(1)(d)7, F.S., for purposes of cost recovery of related expenditures and expenses through environmental cost recovery clause.

Docket 020853 -- 2002 depreciation filing by Florida Public Utilities Company.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 020726 -- Petition for approval of new environmental program for cost recovery through environmental cost recovery clause by Tampa Electric Company.

Docket 020648 -- Petition for approval of environmental cost recovery of St. Lucie Turtle Net Project for period of 4/15/02 through 12/31/02 by Florida Power & Light Company.

Docket 020566 -- Petition for approval of recovery schedule for two Gannon Station generating units, effective January 1, 2002, by Tampa Electric Company.

Docket 020340 -- Request by Florida Public Utilities Company for depreciation rates to reflect acquisition of Atlantic Utilities, a Florida Division of Southern Union Company d/b/a South Florida Natural Gas.

Docket 020332 -- Request for approval to begin depreciating Sanford Unit No. 5, using whole life depreciation rates currently approved for Martin Power Plant, Unit No. 4 and Common, and expand Ft. Myers depreciation rates to include heat recovery steam generators (HRSGs), effective with in-service date of unit, by Florida Power & Light Company.

Docket 020304 -- 2002 depreciation filing by Florida Division of Chesapeake Utilities Corporation.

2001

Docket 011595 -- Request for depreciation rates for new accounts, by Indiantown Gas Company.

Docket 010949 -- Request for rate increase by Gulf Power Company.

Docket 010906 -- Request for approval of depreciation study for five-year period 1996 through 2000 by Sebring Gas System, Inc.

Docket 010789 -- 2001 Depreciation and Dismantling Study by Gulf Power Company.

Docket 010669 -- Request for approval of implementation date of January 1, 2002, for new depreciation rates for Marianna Electric Division by Florida Public Utilities Company.

Docket 010668 -- Petition for approval of recovery schedule for three generating units, effective January 1, 2001, by Tampa Electric Company.

Docket 010383 -- Application for approval of new depreciation rates by Tampa Electric Company d/b/a Peoples Gas System.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 010261 -- Petition by Florida Power & Light Company for waiver of certain requirements of Rule 25-6.0436, F.A.C., as they apply to filing of depreciation study.

Docket 010107 -- Request for approval to begin depreciating Martin Simple Cycle Expansion Project by use of Whole Life Depreciation Rates currently approved for Martin Power Plant, Unit No. 4 and Common effective with in-service dates of units, by Florida Power & Light Company.

Docket 010031 -- 2000 Fossil Dismantlement Cost Study by Florida Power Corporation.

2000

Docket 001835 -- Petition for approval of revised annual accrual for nuclear decommissioning costs by Florida Power Corporation.

Docket 001608 -- Petition for approval of depreciation rates for new plant subaccounts by Florida Power Corporation.

Docket 001447 -- Request for rate increase by St. Joe Natural Gas Company, Inc.

Docket 001437 -- Request by Florida Power & Light Company for approval to begin depreciating Ft. Myers Power Plant using whole life depreciation rates currently approved for Martin Power Plant, Unit No. 4.

Docket 001148 -- Review of the retail rates of Florida Power & Light Company.

Docket 000824 -- Review of Florida Power Corporation's earnings, including effects of proposed acquisition of Florida Power Corporation by Carolina Power & Light.

Docket 000686 -- Revised depreciation study for Gannon Station by Tampa Electric Company.

Docket 000543 -- Proposed Rule 25-6.04365, F.A.C., Nuclear Decommissioning.

Docket 000518 -- Revised depreciation study for Sanford Site by Florida Power & Light Company.

Docket 000108 -- Request for rate increase by Florida Division of Chesapeake Utilities Corporation.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

1999

Docket 991931 -- Determination of appropriate method of recovery for the last core of nuclear fuel for Florida Power & Light Company and Florida Power Corporation.

Docket 990947 -- Petition for a full revenue requirements rate case for Gulf Power Company by the Citizens of the State of Florida.

Docket 990707 -- Proposed amendments to Rule 25-6.0142, F.A.C., Uniform Retirement Units for Electric Utilities.

Docket 990649B -- Investigation into pricing of unbundled network elements (Sprint/Verizon track).

Docket 990649A -- Investigation into pricing of unbundled network elements (BellSouth track).

Docket 990529 -- Petition for 1999 depreciation study by Tampa Electric Company.

Docket 990324 -- Disposition of Florida Power & Light Company's accumulated amortization pursuant to Order PSC-96-0461-FOF-EI.

Docket 990321 -- Petition of ACI Corp. d/b/a Accelerated Connections, Inc. for generic investigation to ensure that BellSouth Telecommunications, Inc., Sprint-Florida, Incorporated, and GTE Florida Incorporated comply with obligation to provide alternative local exchange carriers with flexible, timely, and cost-efficient physical collocation.

Docket 990302 -- Depreciation study by Florida Public Utilities Company.

Docket 990229 -- Depreciation study by City Gas Company of Florida.

Docket 990067 -- Petition by The Citizens of the State of Florida for a full revenue requirements rate case for Florida Power & Light Company.

1998

Docket 981834 -- Petition of Competitive Carriers for Commission action to support local competition in BellSouth Telecommunications, Inc.'s service territory.

Docket 981390 -- Investigation into the equity ratio and return on equity of Florida Power & Light Company.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 981246 -- Petition by Florida Power & Light Company for approval of annual accrual for Turkey Point and St. Lucie nuclear decommissioning unit costs.

Docket 981166 -- Request for approval of revised fossil dismantlement expense accruals, effective 1/1/99, by Florida Power & Light Company.

Docket 980845 -- 1998 Depreciation Study by Indiantown Gas Company.

Docket 980733 -- Discovery related to study on fair and reasonable rates and on relationships among costs and charges associated with certain telecommunications services provided by local exchange companies (LECs), as required by Chapter 98-277, Laws of Florida.

Docket 980723 -- Petition for approval of accounting methodology for Year 2000 costs by City Gas Company of Florida.

Docket 980700 -- 1997 depreciation study by Atlantic Utilities, a Florida Division of Southern Union Company d/b/a South Florida Natural Gas.

Docket 980696 -- Determination of the cost of basic local telecommunications service, pursuant to Section 364.025, Florida Statutes.

Docket 980583 -- 1998 depreciation study by Florida Public Utilities Company, Fernandina Beach Division.

Docket 980366 -- Request by Gulf Power Company for approval to initiate amortization of a cogeneration facility projected to be placed in service in April 1998.

Docket 980103 -- 1997 depreciation study by St. Joe Natural Gas Company, Inc.

Docket 980000A -- UNDOCKETED SPECIAL PROJECT: Fair and Reasonable Residential Basic Local Telecommunications Rates.

1997

Docket 971660 -- 1997 depreciation study by Florida Power & Light Company.

Docket 971608 -- Petition of AmeriSteel Corporation for limited proceeding to reduce Florida Power & Light Company's annual revenues by \$440 million.

Docket 971570 -- 1997 depreciation study by Florida Power Corporation.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 971495 -- Request for approval of capital recovery schedules by Northeast Florida Telephone Company, Inc.

Docket 971396 -- Investigation of 1996 earnings of Northeast Florida Telephone Company, Inc.

Docket 970785 -- Depreciation studies by Florida Power & Light Company for specific (steam) generation sites.

Docket 970643 -- 1997 depreciation filing by Gulf Power Company.

Docket 970537 -- 1997 depreciation study by Florida Public Utilities Company, Marianna Division.

Docket 970428 -- 1996 depreciation filing by Florida Division of Chesapeake Utilities Corporation.

Docket 970410 -- Proposal to extend plan for recording of certain expenses for years 1998 and 1999 for Florida Power & Light Company.

1996

Docket 961515 -- Proposed amendment of Rule 25-6.0142, F.A.C., Uniform Retirement Units for Electric Utilities.

Docket 961230 -- Petition by MCI Telecommunications Corporation for arbitration with United Telephone Company of Florida and Central Telephone Company of Florida concerning interconnection rates, terms, and conditions, pursuant to the Federal Telecommunications Act of 1996.

Docket 960847 -- Petition by AT&T Communications of the Southern States, Inc. for arbitration of certain terms and conditions of a proposed agreement with GTE Florida Incorporated concerning interconnection and resale under the Telecommunications Act of 1996.

Docket 960833 -- Petition by AT&T Communications of the Southern States, Inc. for arbitration of certain terms and conditions of a proposed agreement with BellSouth Telecommunications, Inc. concerning interconnection and resale under the Telecommunications Act of 1996.

Docket 960797 -- 1996 depreciation study of Indiantown Telephone System, Inc.

Docket 960794 -- Request for approval of remaining life rates by Quincy Telephone Company.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 960788 -- 1996 depreciation study by Frontier Communications of the South, Inc.

Docket 960775 -- 1996 depreciation filing by Sebring Gas System, Inc.

Docket 960715 -- Proposed amendment of Rules 25-4.0174, F.A.C., Uniform System and Classification of Accounts - Depreciation, and 25-4.0175, F.A.C., Depreciation; and Repeal of Rule 25-4.176, F.A.C., Recovery Schedules.

Docket 960527 -- Request for approval of site specific depreciation studies by Florida Power & Light Company.

Docket 960409 -- Prudence review to determine regulatory treatment of Tampa Electric Company's Polk Unit.

Docket 960404 -- Application for approval of new depreciation rates by Peoples Gas System, Inc.

1995

Docket 951433 -- Petition for approval of special accounting treatment of expenditures related to Hurricane Erin and Hurricane Opal by Gulf Power Company.

Docket 951167 -- Petition for authorization to increase the annual storm fund accrual commencing January 1, 1995 to \$20.3 million; to add approximately \$51.3 million of recoveries for damage due to Hurricane Andrew and the March 1993 Storm; and to re-establish the storm reserve for the costs of Hurricane Erin by increasing the storm reserve and charging to expense approximately \$5.3 million, by Florida Power & Light Company.

Docket 951069 -- Petition and complaint of Harris Corporation against BellSouth Telecommunications, Inc. concerning complex inside wiring.

Docket 950948 -- Proposed amendment of Rule 25-30.140, F.A.C., Depreciation.

Docket 950887 -- Request for approval of 1995 Depreciation Study by ALLTEL Florida, Inc.

Docket 950776 -- Request for approval of 1995 Depreciation Study by West Florida Natural Gas Company.

Docket 950696 -- Determination of Funding for Universal Service and Carrier of Last Resort Responsibilities.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 950640 -- Triennial depreciation study for approval by Northeast Florida Telephone Company, Inc.

Docket 950506 -- Application to amortize depreciation reserve imbalance and to change depreciation rates and schedules by BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company.

Docket 950499 -- Petition for approval of 1995 Depreciation Study by Tampa Electric Company.

Docket 950381 -- Request for approval of depreciation rates for newly established accounts by Sebring Gas System, Inc.

Docket 950344 -- Petition to implement triennial depreciation represetion by GTE Florida Incorporated.

Docket 950283 -- Investigation into 1994 earnings of United Telephone Company of Florida.

Docket 950270 -- Petition for approval of accounting treatment for funds expended on Lake Tarpon-Kathleen transmission line by Florida Power Corporation.

Docket 950213 -- Petition for approval of recovery schedule for energy management system by Tampa Electric Company.

Docket 950071 -- Modified Minimum Filing Requirements in compliance with Section 366.06(3)(a), F.S., by Florida Power & Light Company.

1994

Docket 941352 -- Petition for approval of increase in accrual for nuclear decommissioning costs by FLORIDA POWER CORPORATION.

Docket 941350 -- Petition for increase in annual accrual for Turkey Point and St. Lucie Nuclear Unit Decommissioning Costs by FLORIDA POWER & LIGHT COMPANY.

Docket 941343 -- Request for approval of Fossil Dismantlement Studies by FLORIDA POWER & LIGHT COMPANY.

Docket 941317 -- Petition for approval of 1995 depreciation rates for Martin Units 3 and 4 by FLORIDA POWER & LIGHT COMPANY.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 941229 -- Request for approval of 1994 Depreciation Study by UNITED TELEPHONE COMPANY OF FLORIDA and CENTRAL TELEPHONE COMPANY OF FLORIDA.

Docket 941023 -- Petition to recover Operator Systems investment by GTE FLORIDA INCORPORATED.

Docket 940826 -- Request for approval of capital recovery requirements by INDIANTOWN TELEPHONE SYSTEM, INC.

Docket 940580 -- Request for approval of 1993 depreciation study for Fernandina Beach Division of FLORIDA PUBLIC UTILITIES COMPANY.

Docket 940374 -- Request for approval of 1993 depreciation study by FLORIDA PUBLIC UTILITIES COMPANY.

Docket 940353 -- Request for change in depreciation rate effective 10/1/94 by ST. JOSEPH TELEPHONE & TELEGRAPH COMPANY.

Docket 940284 -- Request to prescribe depreciation rate for the new plant account by WEST FLORIDA NATURAL GAS COMPANY.

Docket 940165 -- Request to amortize the negative depreciation reserve for the Sanderson Digital Remote Switch in 1993 by NORTHEAST FLORIDA TELEPHONE COMPANY, INC.

Docket 940161 -- 1994 Depreciation Study of CITY GAS COMPANY OF FLORIDA.

1993

Docket 931231 -- Request for approval of change in depreciation rates by FLORIDA POWER & LIGHT COMPANY.

Docket 931217 -- Request for approval of depreciation rates for Martin Power Plant Units 3 and 4 by FLORIDA POWER & LIGHT COMPANY.

Docket 931150 -- Petition to approve an amortization period for acquisition adjustment associated with purchase of Sebring Utilities Commission electric system by FLORIDA POWER CORPORATION.

Docket 931142 -- Request for approval of 1993 depreciation study by FLORIDA POWER CORPORATION.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 930611 -- Investigation into deferral of implementation of any change to methodology used in establishing current depreciation, dismantlement, and decommissioning rates in FLORIDA POWER & LIGHT COMPANY's next general base rate proceeding.

Docket 930566 -- Request for approval to begin depreciating Ft. Lauderdale Power Plant, Units 4 & 5, using Whole Life Depreciation Rates approved for Putnam Power Plant effective with in-service dates of units by FLORIDA POWER & LIGHT COMPANY.

Docket 930453 -- Depreciation study as of 12/31/92 for Marianna Electric Division of FLORIDA PUBLIC UTILITIES COMPANY.

Docket 930230 -- 1993 Depreciation Study of VISTA-UNITED TELECOMMUNICATIONS.

Docket 930221 -- 1993 Depreciation Study of GULF POWER COMPANY.

Docket 930170 -- 1993 Depreciation Study of GULF TELEPHONE COMPANY.

Docket 930063 -- 1992 Depreciation Study for INDIANTOWN GAS COMPANY.

1992

Docket 921337 -- Request for review of five-year comprehensive study of depreciable property for period ending 12/31/92 by ST. JOE NATURAL GAS COMPANY, INC.

Docket 921278 -- Review of capital recovery requirements of INDIANTOWN TELEPHONE SYSTEM, INC.

Docket 920618 -- Depreciation study for Big Bend Station and Gannon Station by TAMPA ELECTRIC COMPANY.

Docket 920589 -- Triennial depreciation study for 1989, 1990, and 1991 for NORTHEAST FLORIDA TELEPHONE COMPANY, INC.

Docket 920389 -- Request for approval of depreciation rates and a dismantlement accrual for Scherer Unit 4 by FLORIDA POWER & LIGHT COMPANY.

Docket 920385 -- Application to change depreciation rates and schedules effective 1/1/92 by BELLSOUTH TELECOMMUNICATIONS, INC. d/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY.

Docket 920324 -- Application for a rate increase by TAMPA ELECTRIC COMPANY.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 920284 -- Petition to implement Triennial Depreciation Represcription by GTE FLORIDA INCORPORATED.

Docket 920096 -- Petition to reverse the transfer of reserve account surpluses required by Order No. 23957 and to represcribe depreciation rates based on the revised account balances, by FLORIDA POWER CORPORATION.

1991

Docket 911229 -- 1991 Depreciation Study of GULF POWER COMPANY.

Docket 911199 -- Petition to prescribe depreciation rates for new plant accounts by FLORIDA POWER CORPORATION.

Docket 911101 -- Request for consolidated depreciation rates by CITY GAS COMPANY OF FLORIDA.

Docket 910988 -- Petition requesting special reserve amortizations by GTE FLORIDA INCORPORATED.

Docket 910981 -- Nuclear Decommissioning Cost Studies by FLORIDA POWER CORPORATION and FLORIDA POWER & LIGHT COMPANY.

Docket 910747 -- Proposed revision to Rules 25-4.0175, 25-6.0436, and 25-7.045, F.A.C., Depreciation for Telephone, Electric, and Gas Utilities.

Docket 910725 -- 1991 Depreciation Study for UNITED TELEPHONE COMPANY OF FLORIDA.

Docket 910686 -- Petition for approval of 1991 Depreciation Study by TAMPA ELECTRIC COMPANY.

Docket 910319 -- Application for New Depreciation Rates by PEOPLES GAS SYSTEM INC.

Docket 910154 -- Petition of FLORIDA POWER CORPORATION for a limited proceeding to consider their request for an increase in revenues to offset any additional depreciation expense that the Commission might approve related to fossil plant dismantlement costs.

Docket 910081 -- 1991 Depreciation Study for FLORIDA POWER & LIGHT COMPANY.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

1990

Docket 901001 -- Request for change in depreciation rates for Putnam and St. Johns River Power Park generating stations by FLORIDA POWER & LIGHT COMPANY.

Docket 900794 -- Request for approval of change in depreciation rates for Martin and Turkey Point generating sites, to become effective 1/1/91, by FLORIDA POWER & LIGHT COMPANY.

Docket 900607 -- 1991 Depreciation Study for Fernandina Beach electric division of FLORIDA PUBLIC UTILITIES COMPANY.

Docket 900605 -- Petition for approval to implement triennial depreciation represetion by GTE FLORIDA INCORPORATED.

Docket 900600 -- 1990 Depreciation Study of FLORIDA PUBLIC UTILITIES COMPANY.

Docket 900599 -- 1990 Depreciation Study of GULF TELEPHONE COMPANY.

Docket 900597 -- 1990 Depreciation Study of WEST FLORIDA NATURAL GAS COMPANY.

Docket 900555 -- 1990 Depreciation and Decommissioning Studies for Manatee Power Plant, Riviera Power Plant and Sanford Power Plant of FLORIDA POWER & LIGHT COMPANY.

Docket 900495 -- Request for change in depreciation rates for Fort Myers Power Plant by FLORIDA POWER & LIGHT COMPANY.

Docket 900348 -- Petition for approval of depreciation rates for Energy Management System by TAMPA ELECTRIC COMPANY.

Docket 900164 -- Request for change in depreciation rates for Fort Lauderdale and Port Everglades Power Plants by FLORIDA POWER & LIGHT COMPANY.

Docket 900163 -- Request for approval to recover cost to decommission facilities at Palatka Generating Site by FLORIDA POWER & LIGHT COMPANY.

Docket 900162 -- 1990 Depreciation Study for VISTA-UNITED TELECOMMUNICATIONS.

UTILITY PROCEEDINGS
IN WHICH PAT LEE PARTICIPATED OR
PRESENTED TESTIMONY AT THE FLORIDA PUBLIC SERVICE COMMISSION

Docket 900057 -- Proposed revisions to Rule 25-6.0142, F.A.C., pertaining to Uniform Retirement Units for Electric Utilities.

1989

Docket 891373 -- INDIANTOWN TELEPHONE SYSTEM, INC. - 1990 Depreciation Study.

Docket 891370 -- ST. JOSEPH TELEPHONE AND TELEGRAPH COMPANY - 1990 Depreciation Study.

Docket 891154 -- Request by FLORIDA POWER & LIGHT COMPANY for approval of depreciation rates for St. Johns River Coal Terminal.

Docket 891115 -- SOUTHLAND TELEPHONE COMPANY - 1989 depreciation study.

Docket 891098 -- Request by FLORIDA POWER & LIGHT COMPANY for change in depreciation rates for Cape Canaveral generating station.

Docket 891050 -- FLORALA TELEPHONE COMPANY - 1989 depreciation study.

Docket 891026 -- Request by ALLTEL FLORIDA, INC. for new depreciation rates.

Docket 890788 -- NORTHEAST FLORIDA TELEPHONE COMPANY, INC. - 1989 Depreciation Study.

Docket 890725 -- FLORIDA PUBLIC UTILITIES COMPANY, Marianna Electric Division - 1989 Depreciation Study.

Docket 890256 -- Review of SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY's capital recovery position.

Docket 890186 -- Investigation of the ratemaking and accounting treatment for the dismantlement of fossil-fueled generating stations.

1988

Docket 881543 -- CENTRAL TELEPHONE COMPANY OF FLORIDA - 1988 Depreciation Study.

Newfoundland & Labrador

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

ORDER NO. P.U. 40(2012)

IN THE MATTER OF

the *Electrical Power Control Act, 1994*, SNL 1994, Chapter E-5.1
(the "*EPCA*") and the *Public Utilities Act, RSNL 1990*,
Chapter P-47 (the "*Act*") and regulations thereunder;

AND IN THE MATTER OF

an application from Newfoundland and Labrador Hydro for approval
of changes in depreciation methodology and asset service lives
pursuant to Section 68 of the *Act*.

BEFORE:

Andy Wells
Chair and Chief Executive Officer

Darlene Whalen, P.Eng.
Vice-Chair

Dwanda Newman, LL.B.
Commissioner

James Oxford
Commissioner

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1 **I. APPLICATION AND PROCEEDING**

2
3 **Application**

4
5 Newfoundland and Labrador Hydro (“Hydro”) filed an application (the “Application”) with the Board of Commissioners of Public Utilities (the “Board”) on December 22, 2011 for approval of changes in depreciation methodology and asset service lives. In the Application Hydro is proposing that:

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8
9
10 1. depreciation be applied using the straight line method for all of its assets;
11 2. depreciation be calculated with group accounting methods using the average service
12 life procedure and applied on a remaining life basis; and
13 3. any financial effects of these changes be included in customers' rates following
14 Hydro's next General Rate Application.

15
16 **Background**

17
18 In its 2006 General Rate Application Hydro requested approval in principle to adopt the
19 recommendations of the depreciation study, which had been filed by Hydro in December
20 2005 in compliance with Order No. P.U. 7(2002-2003), with implementation of the
21 methodology to be deferred. In Order No. P.U. 28(2006) the Board directed that Hydro's
22 request for approval in principle of the straight line and equal life group depreciation
23 methodology be addressed in a separate process.

24
25 In April 2009 Hydro filed an updated depreciation study. Hydro also advised the Board
26 at that time that the new International Financial Reporting Standards (“IFRS”) were to be
27 adopted by January 2011 and that it was uncertain that all the recommendations
28 contained in the updated depreciation study were compliant with IFRS. This uncertainty
29 resulted in a delay in the filing of this Application.

30
31 In Order No. P.U. 13(2012) the Board approved the adoption by Hydro of IFRS for
32 regulatory purposes effective January 1, 2012.

33
34 **Proceeding**

35
36 The intervenors in this proceeding were the Consumer Advocate, Mr. Thomas Johnson,
37 the Island Industrial Customers (the “Industrial Customers”), represented by Mr. Paul
38 Coxworthy, and Newfoundland Power Inc. (“Newfoundland Power”), represented by Mr.
39 Gerard Hayes. Hydro was represented by Mr. Geoff Young and Mr. Colin Feltham.

40
41 The Board was assisted throughout the proceeding by Ms. Maureen Greene, Q.C., who
42 acted as Board Hearing Counsel, and Ms. Jacqueline Glynn, Board Counsel.

1 Expert evidence was filed by Hydro, the Consumer Advocate and the Industrial
2 Customers as follows:

- 3 (i) Larry E. Kennedy, Gannett Fleming, Inc., December 22, 2011 (Hydro);
4 (ii) Jacob Pous, Diversified Utility Consultants Inc., October 3, 2012 (Consumer
5 Advocate); and
6 (iii) Patricia Lee, BCRI Valuation Services, October 3, 2012 (Industrial Customers).

7
8 Hydro responded to 368 requests for information, the Consumer Advocate responded to
9 84 and the Industrial Customers responded to 47.

10
11 A technical conference was held on August 23, 2012. All parties participated in the
12 technical conference.

13
14 **Settlement Agreement**

15
16 After the filing of expert evidence, Hydro, the Consumer Advocate and the Industrial
17 Customers agreed to hold settlement discussions. Newfoundland Power was advised of
18 the settlement discussions but did not participate. On October 26, 2012 settlement
19 discussions were facilitated by Board Hearing Counsel. On November 14, 2012 a
20 settlement agreement (the "Settlement Agreement") was executed and filed with the
21 Board for consideration.

22
23 The Settlement Agreement, as agreed to by Hydro, the Consumer Advocate and the
24 Industrial Customers, is set out in Schedule 1.

25
26 **Hearing**

27
28 A hearing was held on November 15, 2012. At the hearing the Settlement Agreement
29 was entered on the record. The Consumer Advocate and the Industrial Customers were
30 present at the hearing and indicated their consent to the terms of the Settlement
31 Agreement. Newfoundland Power did not attend the hearing but filed correspondence
32 indicating that Newfoundland Power had no objection to the Settlement Agreement.
33 Hydro has requested that the Board accept the Settlement Agreement as a full and final
34 resolution of all matters relating to depreciation.

35
36 **Updated Depreciation Study**

37
38 On December 3, 2012 Hydro filed an updated Depreciation Study incorporating the terms
39 of the Settlement Agreement. On December 12, 2012 the Consumer Advocate and the
40 Industrial Customers advised that they did not have any comments on the updated study.
41 On December 17, 2012 Hydro filed an amended letter from Gannett Fleming outlining a
42 number of issues from the Settlement Agreement on which the parties agreed and which
43 affect Hydro's application of group depreciation to its assets.

1 **III. BOARD DECISION**

2
3 The Settlement Agreement outlines the depreciation methodology and changes to asset
4 service lives to be applied by Hydro with effect from January 1, 2011 to determine
5 depreciation expense from January 1, 2012 on a go-forward basis with the corresponding
6 adjustment for 2011 to be made to opening retained earnings. The calculated annual
7 depreciation accrual rates are applicable to plant in service as of December 31, 2009. The
8 estimated 2011 impacts on depreciation expense are set out in Table 2 of the Settlement
9 Agreement.

10
11 The proposed changes will not impact current customer rates as Hydro proposes that the
12 financial effects of the changes be included in customer rates established in its next
13 general rate application. Hydro filed a rate impact analysis on November 14, 2012,
14 showing what the estimated impact of the proposals would be on the parties' 2011
15 revenue requirement levels. This analysis shows that there would be minimal rate
16 impacts for Newfoundland Power, a decrease of approximately 12% for Rural Labrador
17 Interconnected customers, and an increase of approximately 2% for Industrial customers.

18
19 Hydro provided evidence that the sinking fund method places an unfair burden on current
20 ratepayers to the benefit of past ratepayers and that it is generally not used by regulated
21 companies. The Board notes that to be IFRS compliant Hydro must change to the straight
22 line method of depreciation as the sinking fund method is no longer an acceptable method
23 under IFRS. The Board is satisfied that Hydro should adopt the straight line method of
24 depreciation. The Board accepts the agreement of the parties with respect to Hydro's
25 depreciation methodology and asset service lives, including Hydro's modified sinking
26 fund formula and Hydro's historical calculation of sinking fund depreciation.

27
28 In accordance with the terms of the Settlement Agreement Hydro has agreed to provide,
29 at the time of its next depreciation study, a report, on a limited number of groups of
30 property, comparing the agreed methodology to the application of depreciation on a pure
31 group basis. The Board notes that the findings of this report would not be applied
32 retroactively but rather would provide information for future rate making purposes. In the
33 Board's view this is a reasonable approach to resolve what appears to have been a
34 difference in expert opinion on this specific issue. The Board will accept this
35 recommendation.

36
37 The Settlement Agreement also recommends that the parties participate in a consultation
38 process to be established by the Board in relation to the filing requirements for future
39 depreciation studies. The Board accepts this recommendation on the basis that it should
40 provide for a more effective and efficient consideration of depreciation matters for both
41 Hydro and Newfoundland Power in the future.

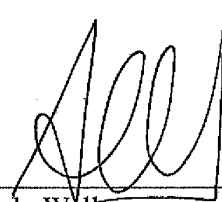
42
43 The Board also notes that Hydro agrees to pay costs of the Industrial Customers in this
44 matter in the amount of \$55,000.

1 **IV. BOARD ORDER**

2
3 **IT IS THEREFORE ORDERED THAT:**

- 4
5 1. **Hydro shall adopt the straight line method of depreciation for all its assets, with**
6 **group accounting methods using average service life procedure and applied on a**
7 **remaining life basis, as outlined in the Gannett Fleming study filed with the**
8 **Board on December 3, 2012 and December 17, 2012.**
- 9
10 2. **Hydro shall provide, at the time of its next depreciation study, a report on group**
11 **accounting for selected groups of property as outlined in Schedule 1.**
- 12
13 3. **Hydro shall pay the costs of the Industrial Customers in the amount of \$55,000.**
- 14
15 4. **Hydro shall pay all costs and expenses of the Board incurred in connection with**
16 **the Application.**

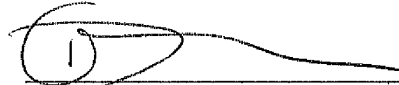
DATED at St. John's, Newfoundland and Labrador this 31st day of December, 2012.



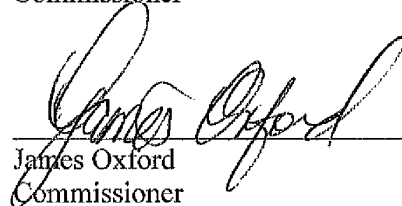
Andy Wells
Chair and Chief Executive Officer



Darlene Whalen, P.Eng
Vice-Chair



Dwanda Newman, LL.B.
Commissioner



James Oxford
Commissioner



Cheryl Blundon
Board Secretary

IN THE MATTER OF the *Electrical Power Control Act*, SNL 1994, Chapter E-5.1 (the *EPCA*) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the *Act*) as amended, and their subordinate regulations; and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro, pursuant to Section 68 of the Act, for the approval of changes in depreciation methodology and asset service lives.

SETTLEMENT AGREEMENT

Whereas Newfoundland and Labrador Hydro ("Hydro") has applied to the Board of Commissioners of Public Utilities (the "Board") for an Order, inter alia, approving a change in its depreciation methodology to straight line for all its assets and changes in the service lives of certain assets;

And Whereas the Consumer Advocate, the Industrial Customers and Newfoundland Power Inc. have registered as Intervenors (the "Intervenors") in this proceeding;

And Whereas Hydro, the Consumer Advocate and the Industrial Customers (the "Parties") , with participation by Board hearing counsel, have engaged in negotiations;

And Whereas the Parties have agreed to make joint recommendations to the Board for the resolution of the issues arising out of the Application.

Terms of Agreement

1. The Parties jointly advise the Board that the issues arising from the Application have been settled by negotiation. Save as expressly agreed, this Agreement does not preclude or prejudice the rights of the Parties to pursue any issues that are of concern to them at any future hearing.
2. The Parties consent to the admission in the record of this Application of all pre-filed testimony and exhibits pertaining hereto without the calling of witnesses for the purpose of cross-examination.
3. The Parties recommend that the Board implement the agreement of the Parties as stated in this Agreement in its Order on the present matter.
4. This Agreement represents a reasoned consensus on the overall application and the individual agreements of the Parties are not intended to be severable.

Methodology Issues Agreed Upon

5. The undersigned Parties have reached agreement on all the issues raised by the application of Newfoundland and Labrador Hydro ("Hydro") and, in particular, have agreed as follows:
 - a. Hydro's proposal to switch from sinking fund depreciation methodology to straight line for all its assets is appropriate.

- b. Hydro's modified sinking fund formula and Hydro's historical calculation of sinking fund depreciation will not be made subject to examination or re-examination before the Board, and they are being adopted as the only available bases to move forward to straight line depreciation, in light of the jurisdictional issues raised by Newfoundland Power and Hydro in response to the expert evidence filed by the Consumer Advocate and the Island Industrial Customers.
- c. Hydro's proposal to use the average life group procedure applied on a remaining life basis with effect from January 1, 2011 is appropriate to determine depreciation expense from January 1, 2012 on a go forward basis with the corresponding adjustment for 2011 to be made to opening retained earnings.
- d. Hydro's proposed 136 groups for depreciation purposes are acceptable until varied by further Order of the Board.
- e. Hydro's proposal to use net book value as the base for the calculation of depreciation expense under the straight line method is acceptable due to the conversion to the International Financial Reporting Standards.
- f. Hydro's proposal to apply group depreciation rates to individual assets, rather than to total group investment, is acceptable. At the time of its next depreciation study filing, Hydro shall provide a report, on a limited number of groups of property,

showing the results of the methodology hereby agreed compared to the application of depreciation on a pure group basis for the years from 2013 to the end of the calendar year immediately preceding the date of that report. The specific groups of property and the process for calculating depreciation on a group basis are set out in Schedule A attached.

- g. Hydro's current practice and proposal for the future to stop accruing depreciation once an asset is fully accrued is acceptable until varied by further Order of the Board.
- h. Hydro's current practice and proposal to continue to book, to its income statement, gains and losses related to asset retirements is acceptable until varied by further Order of the Board.

Service Lives Agreed Upon

- 6. The Parties have agreed with the service lives for the units of property as proposed by Hydro with the modifications set out in Table 1 below.

Table 1

Units of Property	Whole Life	
	Original Proposal	Settlement Proposal
Battery and Power Systems	15 years	20 years
Foundations	50 years	57 years
Generators	60 years	65 years
Penstocks	70 years	77 years
Powerhouses	75 years	80 years
Right-of-Ways	55 years	60 years
Roads	50 years	57 years
Software	7 years	10 years
Water Regulating Structures	55 years	70 years

Future Depreciation Studies

7. The Parties recommend that the Board establish a consultation process, which will include the Parties, on the determination of filing requirements for future depreciation studies.

Estimated Results

8. The estimated 2011 impacts on depreciation expense, resulting from the preceding agreement, are shown in Tables 2 below.

Table 2

Service Lives Changes Resulting from Negotiations						
Estimated Changes based on 2011 Test Data						
A	B	C	D	E	F	G
Account	Future Accruals December 31 2010	Hydro Proposed ARL 2009	Depreciation Expense	Settlement ARL 2012	Depreciation Expense	Difference
B01-Battery and Power Systems	\$ 5,637,043	8.4	\$ 563,179.22	14.4	\$ 328,792.03	-\$ 234,387.19
F04- Foundations	\$ 9,294,956	26.8	\$ 347,382.90	34.6	\$ 269,890.18	-\$ 77,492.72
G03- Generators	\$ 45,279,954	36.0	\$ 1,151,033.58	41.4	\$ 1,000,496.22	-\$ 150,537.36
P03-Penstock	\$ 46,764,807	42.4	\$ 1,102,510.07	49.5	\$ 944,743.57	-\$ 157,766.50
P10-Powerhouses	\$ 80,329,410	51.6	\$ 1,559,389.63	56.7	\$ 1,420,270.99	-\$ 139,118.64
R12-Right-of-Ways	\$ 11,686,882	29.2	\$ 398,219.19	34.5	\$ 336,659.15	-\$ 61,560.04
R13-Roads	\$ 78,294,760	26.2	\$ 2,960,458.34	33.1	\$ 2,341,523.30	-\$ 618,935.04
S05-Software	\$ 5,722,799	4.6	\$ 738,358.35	7.7	\$ 441,410.07	-\$ 296,948.28
S16-Studies	\$ 1,255,553	3.7	\$ 342,423.57	3.7	\$ 342,423.60	\$ 0.03
W01-Water Regulating Structures	\$ 19,447,829	35.2	\$ 546,293.85	52.2	\$ 368,268.29	-\$ 178,025.56
			\$ 9,709,248.70		\$ 7,794,477.41	-\$ 1,914,771

Costs

9. Hydro agrees to pay costs of the Industrial Customers in this matter in the amount of \$55,000.

Agreed to this 15th day of November, 2012.

For Industrial Customers:

Paul Blomquist

For the Consumer Advocate:

Thomas Johnson

For Newfoundland & Labrador Hydro:

Geoffrey J.

For the Board's hearing counsel:

Maurice P. Greene

NEWFOUNDLAND AND LABRADOR HYDRO

REPORT ON GROUP ACCOUNTING FOR SELECTED GROUPS OF PROPERTY

Background: Hydro will implement group depreciation effective January 1, 2011. In order to comply with International Financial Reporting Standards Hydro will vary the accounting of group depreciation in the following manner:

- (i) Individual assets will be depreciated to a maximum of their net depreciable cost; and
- (ii) Gains or losses on retirement of assets will be accounted for on the income statement and not in the accumulated reserve.

Purpose for report on group accounting for selected groups of property: Hydro will track the difference between the application of group depreciation outlined in (i) and (ii) above and pure group depreciation in order to determine the financial effect, on a limited number of units of property, of varying the application of group depreciation in order to comply with IFRS. Results are to be presented at the time of Hydro's next depreciation study for information purposes. It is not intended that the findings would be applied retroactively in any manner whatsoever. It is intended that the findings would provide the Board and all parties with information that might aid in the determination of potential future modification to items (i) and (ii) noted above, for ratemaking purposes.

Tracking accounts: It is agreed among the Parties that, at the time of filing its next depreciation study with the Board, Hydro will report on the results of applying pure group depreciation for the following groups of property:

- C11 Computers
- R14 Routers & LAN
- S03 Servers
- S05 Software
- V04 Vehicles - 3/4 Ton & Under
- V06 Vehicles - Cars, Station Wagons & Van

At Hydro's discretion, additional units of property may be tracked and reported on.

Process: Effective January 2013, Hydro will calculate depreciation expense on a group basis, using Excel, for the groups of property outlined above and applying the depreciation rates as determined in the Gannett Fleming depreciation study, or in the circumstances of Account S05 – Software, as agreed to in this negotiated settlement process.

The original cost and accumulated depreciation balances will be extracted by group of property from Hydro's Fixed Asset System.

Individual assets which remain in service beyond their estimated service lives will continue to accumulate depreciation expense.

Any asset retirements will result in a reduction in the original cost and an equal reduction in the accumulated depreciation accounts therefore there will be no gains or losses on retirements recorded on the income statement.

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PUB/MIPUG/COALITION (LEE)-2**

Chapter:	P. Lee Direct Testimony	Page No.:	3 Line 8
Topic:	ELG vs. ASL		
Subtopic:			
Issue:	Characteristics of Depreciation Methodology		

PREAMBLE TO IR:

QUESTION:

- a) With respect to each of the characteristics listed, please summarize in a table whether ASL or ELG meets each of the characteristics with reasons.

RATIONALE FOR QUESTION:

RESPONSE:

(a)

ASL meets each of the characteristics listed on page 3, lines 8-14; in its pure form, ELG does also. The pure form of ELG means that a separate ELG rate is designed for each age of each vintage, vintage actuarial plant and reserve data are required to be maintained, and an annual monitoring and reserve true-up is developed each year to measure any over or under recovery. MH does not appear to be proposing implementing ELG in its pure form but rather some hybrid form. A retirement pattern and life are applied to the plant balance of each vintage. The retirement pattern and life for ELG are statistically developed in the same way as they are for ASL. In ELG though, the retirement pattern and life separates each vintage into hypothetical equal life

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groups. Hypothetical in the sense that the equal life groups are formed based on the selected retirement pattern and life that may or may not reflect how those particular assets have been living, or are expected to live in the future. Because of how the equal life groups are formed, the physical units in each equal life group cannot be identified. The statistical estimation simply establishes the number of units or dollars in each equal life group. This is one reason why it is critical to have vintage plant data if the theoretically correct ELG is to be implemented. The table below explains why ASL or ELG meets the characteristics listed on page 3.

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	ASL	ELG	Reasons
Matching costs with benefits	Yes, if there is a reserve true-up as part of each category's depreciation rate.	<p>Theoretically yes if rates are established for each age of each vintage, if vintage plant and reserve data are maintained, and if there is an annual expense and reserve true-up.</p> <p>However, MH is not proposing to implement the theoretically correct ELG in which a separate ELG rate is developed for each age; it is proposing a composite ELG rate for all vintages of the entire account/category/component. It is therefore not clear whether MH's hybrid ELG rate will match costs with benefits.</p>	<p>Theoretically correct ELG is not practical to implement. The administrative and regulatory costs to maintain vintage plant and reserve data, to annually monitor each vintage for over or under recovery, and to maintain separate ELG rates for each age have not been quantified nor considered by MH to determine whether the costs of implementation outweigh the benefits of the mechanism.</p> <p>Both ASL and ELG will recover the total investment in the category/account/component over the period the related assets are serving the public, if there is a reserve true-up added and if all the requisite ELG requirements are met. Under the original ELG concept, separate annual monitoring of the vintage plant activity and the vintage reserve level is required. This is necessary so that any over or under</p>

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	ASL	ELG	Reasons
			<p>recovery can be measured and an end-of-year depreciation expense and reserve correction for each vintage can be made. The over or under recovery is due to projected life patterns not being realized.</p> <p>For ASL, a reserve imbalance can be calculated and a true-up can be made at the time depreciation rates are reviewed and revised.</p> <p>Certainly ELG is more aggressive than ASL in the earlier years. Given that MH's assets are capital intensive, very long lived (some in excess of 100 years), and increase not decrease in economic value as they age, MH's hybrid form of ELG may not match costs with benefits.</p>
Avoiding intergenerational equity issues	Yes, with a reserve true-up as implemented by MH. Over the life of the property group, full	Theoretically yes, if implemented on a going-forward basis to new additions, if ELG rates are established for each age of each vintage, if vintage plant and reserve data are maintained, and if there is	Reserve imbalances, to the extent they exist, represent a failure in the past to recover. They can and will occur under either ASL or ELG to the extent that the plant under study does not live in accord with the

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	ASL	ELG	Reasons
	recovery will be achieved.	<p>an annual monitoring and reserve true-up provision.</p> <p>However, MH is proposing a hybrid form of ELG where a single composite ELG rate is developed for the entire account/category/component investment. Applying ELG to embedded plant investments creates intergenerational inequities by assuming that ELG has always been the applied procedure. Depreciation rates are designed and implemented on a prospective basis. Logic dictates that a change in depreciation procedure also be implemented prospectively.</p> <p>The MH 2005 depreciation study indicated that vintage plant data is not maintained; aged data was simulated so statistical techniques could be used as though the data were in fact actual. This is another reason that the hybrid ELG rates, if</p>	<p>selected curve shape (retirement pattern) and life estimate. Reserve true-ups are necessary to correct these intergenerational inequities and to provide full recovery.</p> <p>If ELG is to meet the alleged characteristic of being the best mechanism for matching depreciation expenses (recovery) to the using up of the related assets (consumption), then the ability to measure that recovery and consumption is critical for each vintage to which ELG is applied. That measurement can only theoretically be made if the age of the assets which have retired during any given year (vintage actuarial data) is known. To the extent the investment/age mix of plant retiring during a year does not equal the amount of retirements at the age/mix predicted under the ELG rates, there has been an over or under recovery.</p>

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	ASL	ELG	Reasons
		<p>approved, should be implemented on a going forward basis for new additions. The embedded should be subject to ASL with a reserve adjustment. The embedded balance will decrease over time and ultimately be fully recovered and retired.</p>	<p>Without methods and procedures to monitor and analyze the data within each group of property required in using ELG and without detailed information by vintage for each category, the PUB and other interested parties will not be in a position to review life estimates or to determine depreciation expense applicable to that plant used in providing service. Regulatory review ensuring there has not been any under or over recovery of investment through the depreciation rates cannot be assured.</p> <p>A major disadvantage of ELG is with the administrative costs of maintaining the requisite vintage data and performing the annual reviews and reserve true-ups. MH has not quantified these costs. If MH claims that vintage plant and reserve data, a separate ELG rate for each age of each vintage, and an annual reserve</p>

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PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			<p>true-up rate are too costly and burdensome for it to maintain, then the resulting lives and depreciation rates simply reflect a mathematical exercise with no real added precision. At that point the hybrid ELG is no better than any other procedure.</p> <p>With a prospective application, vintage reserve data should be required to be maintained so that an annual reserve true-up for ELG vintages can be made as needed.</p>
Transparency of method, calculations, intentions, and resulting expenses for use in setting customer rates	Yes. The same ASL depreciation rate is applied to each vintage of each account. In this way each vintage is treated as though it will experience the life of the group.	Theoretically yes, if a separate ELG rate is established for each age of each vintage, and vintage plant and reserve data are maintained. However, MH proposes a hybrid ELG rate that does not meet this characteristic.	Most of the calculations in developing the ELG rate are done within the computer. The reason for this is the voluminous number of rates to track for each vintage. A separate ELG rate is calculated for each age of each vintage. Over a period of three years, this equates to three separate ELG rates for each account/category/component. Over a period of 10 years, this would be

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PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			<p>10 separate ELG rates for each account/category/component for each age plus an additional annual reserve true-up rate. In order to reduce the number of separate rates for each vintage, the mathematics is performed within the computer and the process simplified by developing one ELG rate representing the composite of the separate ELG rates for each age within an account/category/component. Thus, one hybrid ELG rate would apply to the account/category/component rather than a different rate for each age of each vintage. Application of a composite rate is not the same and does not yield the same expenses as applying separate ELG rate for each age to the investment surviving at that age.</p> <p>ASL is based on the concept of averages for the group (account/category/component) as a</p>

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			<p>whole. Some assets within the group will live shorter than the average life while others may live longer than the average life. The life pattern is not necessarily representative of any vintage, but is intended to reflect the average pattern expected from the entire group. Within the group, any given year of activity may experience more or less retirements than indicated by the curve shape. By the very nature of a group, there can be a variation of service lives among the contained items.</p> <p>A major disadvantage of ELG is with the administrative costs of maintaining the requisite vintage data and performing the annual reviews and reserve true-ups. These costs have not been quantified. If vintage plant and reserve data, a separate ELG rate for each age of each vintage, and an annual reserve true-up rate are too costly and</p>

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			burdensome for a company to maintain, then the resulting lives and depreciation rates simply reflect a mathematical exercise with no real added precision. In which case, simply accept ELG as a mechanism to increase cash flow and forget the purist argument of ideally matching recovery with consumption.
Quality of data in determining an appropriate retirement pattern and life	Yes. Vintage data is not requisite for ASL because the account is not divided. ASL assumes that some items in the group will live longer than the average life while others will live shorter but the account as a whole will live the average.	Theoretically yes if adequate data is available for the proper application of ELG and if recordkeeping and reporting practices will enable monitoring the reasonableness of the rate of allocation of original cost. According to MH's 2014 depreciation study, it does not have vintage data for many of its accounts.	For ELG to meet the alleged characteristic of being the best mechanism for matching depreciation expenses (recovery) to the using up of the related assets (consumption), then the ability to measure that recovery and consumption is critical for each vintage to which ELG is applied. That measurement can only theoretically be made if the age of the assets which have retired during any given year (vintage actuarial data) is known. To the extent the investment/age mix of plant retiring during a year does not equal the

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			<p>amount of retirements at the age/mix predicted under the ELG rates, there has been an over or under recovery. Without methods and procedures to monitor and analyze the data within each group of property required in using ELG and without detailed information by vintage for each category, the PUB and other interested parties will not be in a position to review life estimates or to determine depreciation expense applicable to that plant used in providing service. Regulatory review ensuring there has not been any under or over recovery of investment through the depreciation rates cannot be assured.</p> <p>While vintage data would be advantageous using the ASL method, it is not a critical requirement because the concept is based on averages.</p> <p>A disadvantage of ELG is with the</p>

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-2**

	ASL	ELG	Reasons
			<p>increased administrative costs of maintaining the requisite vintage data and performing the annual reviews and reserve true-ups. These costs have not been quantified. It cannot be said whether taking into consideration these costs would be less costly or more costly than MH's estimated \$2 million to additionally componentize for ASL to be compliant with IFRS. [If MH estimates costs of maintaining vintage plant and reserve data, a separate ELG rate for each age of each vintage, and an annual reserve true-up rate are too costly and burdensome then there is essentially no added benefit or accuracy changing to a new depreciation procedure. ELG rates will be the result of a mathematical exercise with no real added precision. The purist argument for ELG of ideally matching recovery with consumption</p>

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	ASL	ELG	Reasons
			will not exist.] An advantage of using ASL is the simplicity of the approach and wide acceptance.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-3**

Chapter:	P. Lee Direct Testimony	Page No.:	9 Lines 1-14
Topic:			
Subtopic:			
Issue:	ELG Rate		

PREAMBLE TO IR:

QUESTION:

- a) Please explain how MH can improve its selection of Iowa Curves, given the current level of historical retirements.
- b) To what extent does the subjectivity of selection of Iowa Curves impact depreciation rates under ASL versus ELG.

RATIONALE FOR QUESTION:

To understand how the subjectivity of the selection of Iowa Curves differs by using ASL versus ELG.

RESPONSE:

(a)

A selected curve shape and life are applied to the account/category/component investment. The investment is then divided into equal life groups in accord with that curve shape and life. If the components live in accord with the selected curve and retirement pattern, then all will be well. To the extent this does not happen, there will be an under or over recovery that will need to be trued-up via a reserve correction.

ELG rates should be applied to new additions on a going forward basis and not to the embedded investment. MH should be required to maintain vintage actuarial plant and

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reserve data for each category to which an ELG rate is applied. In other words when a retirement occurs in the future, MH will know the vintage the retirement was actually placed into service. This type data plotted should provide better curve fits. If there is a reason the data is deemed to not be representative, it should be noted and explained why.

(b)

Subjectivity of selected curve shapes will impact the life and therefore the depreciation rates under both ASL and ELG. The concern is that ELG is much more sensitive to the curve shape than is ASL or average remaining life. The amounts to be divided into equal life groups depend greatly on the selected curve shape. Low mode curves indicating high infant mortality (early retirements) like L0, L1, R0, R1 will result in shorter lives under ELG than higher mode curves, especially if there is significant growth. The more left modal (maximum retirement frequency occurs prior to 100% of life) the curve is, the greater the depreciation expenses that occur in the early years using ELG.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

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Chapter:	P. Lee Direct Testimony	Page No.:	9 -10
Topic:	Data Requirement for ELG		
Subtopic:			
Issue:	Sensitivity to Iowa Curve Selection		

PREAMBLE TO IR:

QUESTION:

- a) To what degree is the ASL procedure subject to variability in depreciation expense from using Iowa curves of different shapes. Please compare Table 4 prepared on an ASL basis with ELG and comment on any differences.
- b) Please indicate to what extent the depreciation varies under ELG versus ASL based on the relative heights of the modes of the frequency curves with each Iowa curve family.
- c) Please describe the investments MH would be required to make and the costs to maintain actuarial and vintage reserve data.

RATIONALE FOR QUESTION:

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RESPONSE:

(a)

Effect of Curve Shape on ASL Depreciation Expenses							
Activity Year	Age	Selected Curve Shape					
		Iowa L0		Iowa S1		Iowa R5	
		Expenses \$	Rate %	Expenses \$	Rate %	Expenses \$	Rate %
1	0.5	20,000	20.0	20,000	20.0	20,000	20.0
2	1.5	19,421	20.0	19,648	20.0	20,000	20.0
3	2.5	17,390	20.0	19,389	20.0	20,000	20.0

The above table illustrates depreciation rates and resulting expenses on an ASL basis. Compared to Table 4 in Ms. Lee's pre-filed testimony on an ELG basis, one can see that:

- ASL rates are generally lower than ELG rates in the early years, regardless of curve shape.
- The ASL depreciation rates are the same for each activity year; they do not change by vintage compared to the ELG depreciation rates.
- While the curve shape selection does have a small impact on the depreciation expenses using ASL, it is not as dramatic as using ELG. This indicates the sensitivity to curve shape is not as great using ASL.

(b)

The lower the height of the mode of a frequency curve, the more early retirements or infant mortality is expected. Recent vintages of a category are likely to contain more dollars than older vintages. The average dollar in any category is somewhat newer than the midpoint of the lifespan of the overall plant, which in turn usually increases depreciation when ELG is compared to ASL.

(c)

To implement ELG in its pure form, at a minimum, MH should be required to maintain vintage plant and reserve data for new additions to each account an ELG rate is being applied. Without detailed information by vintage for each category for which an ELG rate is applied, regulatory

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review ensuring that companies have no under or over recovered their investment through depreciation rates cannot be assured. A separate ELG rate should be applied to each age of each vintage in calculating depreciation expenses. Additionally, MH should be required to file annual updates for any needed reserve and depreciation expense true-ups needed. Such data and recordkeeping are necessary to enable monitoring of the reasonableness of the ELG rate. There are also additional regulatory costs associated with annual monitoring and updates that should be considered. The costs for these requirements are administratively time consuming and costly; costs that have not been quantified by MH.

While MH estimates possible costs associated with componentizing for ASL to be IFRS compliant, it has not mentioned costs to maintain the vintage data necessary for ELG or the additional staff or regulatory time that might be needed. Companies in the United States have found that these recordkeeping requirements makes ELG, in its pure form, more costly overall.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
PUB/MIPUG/COALITION (LEE)-5**

Chapter:	P. Lee Direct Testimony	Page No.:	12 Lines 8-15
Topic:	ELG – Implementation		
Subtopic:			
Issue:	Adoption of ELG		

PREAMBLE TO IR:

QUESTION:

- a) Please explain why ELG should be applied only to new additions?
- b) Please describe how a three-year phase in approach would be implemented.

RATIONALE FOR QUESTION:

RESPONSE:

(a)

Generally, because of the lack of depreciation data on a vintage level of investment basis, ELG should be applied prospectively to new additions. In this case, the embedded balance will diminish and ultimately be fully depreciated and retired while vintage plant and reserve data on new investments are being gathered. While MH may claim that it does actuarial data for its generation assets, the data was the result of statistical aging as part of the 2005 depreciation study. In other words, aged data has been simulated. Beginning with a new vintage, the company can begin gathering the vintage data rather than relying on simulated data.

Moreover, applying a new depreciation procedure can arguably raise concerns of inequity between different generations of ratepayers by assuming that the new procedure, in this case ELG, has always been the applied procedure. Depreciation rates are designed and implemented on a prospective basis. It is both logical and rational that a change in depreciation procedure should also be implemented prospectively.

(b)

The FCC reasoned that phasing in of a new depreciation procedure would help reduce the immediate impacts of both revenue requirements and staff resources. Such a procedure could be accomplished by implementing ELG rates by functional grouping, such as: in the first year to new additions made to the broad classification of Distribution plant; the second year to new additions to production plant, and in the third year new additions to the remaining categories/components.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
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Chapter:	P. Lee Direct Testimony	Page No.:	14 Lines 1-3
Topic:	Depreciation & Amortization		
Subtopic:			
Issue:	ELG VS ASL		

PREAMBLE TO IR:

QUESTION:

- a) Please provide a listing of U.S. electric generation companies that utilized ASL for depreciation purposes.
- b) Please provide examples of electric utilities which maintain two sets of books: one for regulatory reporting and another for financial reporting and the reasons for the divergent practice.

RATIONALE FOR QUESTION:

RESPONSE:

(a)

The following list is by no means exhaustive but is what could be ascertained in a short period of time to be responsive to this request. As stated, the question asks for historic practice. To be responsive, most of the U.S. electric generation companies have utilized ASL for depreciation practices.

Currently, some companies use the ASL procedure for all accounts, some use a combination of the ASL procedure and remaining life technique, some use the ASL procedure plus a remaining life reserve correction (a whole life depreciation rate plus a

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reserve imbalance correction over the remaining life – sometimes referred to as modified whole life).

- Florida Progress
- Florida Power and Light
- Consumers Energy
- Baltimore Gas & Electric
- Gulf Power
- Northern Utilities
- Idaho Power Company
- Tampa Electric

(b)

Florida Power and Light Company and Florida Progress (Duke Florida). The Florida Commission ordered that the quantified reserve surplus be 1) transferred to correct account reserve deficiencies, 2) applied to offset increased depreciation expenses. Ms. Lee understands that these companies reflected the regulatory differences on the financial books.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
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Chapter:	P. Lee Direct Testimony	Page No.:	15 Lines 12-32
Topic:	Depreciation Reserve Surplus		
Subtopic:			
Issue:	Recovery of Surplus Book Accumulated Depreciation		

PREAMBLE TO IR:

QUESTION:

- a) Please indicate what shorter period of time should be considered for addressing reserve imbalances and describe practices followed by other Utilities in addressing rebalancing.
- b) Given the proposed capital plans of Manitoba Hydro please indicate the impact on the timing of the recovery of the current surplus book accumulated depreciation.

RATIONALE FOR QUESTION:

RESPONSE:

(a)

Reserve imbalances can be written off as fast as economically practicable, which can be in as short as one year. They represent a misstatement of the rate base and a failure of the matching principle (matching expenses with revenues). The matching concept argues for a quick write-off of the imbalance, the quicker the better in order that the ratepayers who may have overpaid will have a chance of benefitting. That said, there is no real standard for the write-off or correction period. In Florida, the FPSC has approved write-offs of reserve imbalances as short as one year to a period longer than the remaining life. In other states, many companies correct reserve imbalances through

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the reserve sensitive depreciation rates such as modified whole life or remaining life. Modified whole life is the ASL rate (or whole life rate) plus a reserve adjustment (reserve imbalance divided by the remaining life). Remaining life is a method which determines the remaining investment yet to be recovered (i.e., adjusted for reserve and expected net salvage) and spreads the recovery over the years that investment is expected to remain in service. Modified whole life rates and remaining life rates are the same. The reserve sensitivity or self-adjusting quality of remaining life depreciation rates ensures full recovery of the investment by retirement.

Companies sometime argue that correction of a reserve surplus over a period shorter than the remaining life will result in higher depreciation rates once the surplus is amortized. This statement is also true if the correction is made over the remaining life of the affected assets. All things remaining equal, as the reserve surplus is corrected, the depreciation reserve will increase thereby causing depreciation rates and future revenue requirements to naturally increase.

(b)

In the case of Manitoba Hydro, amortizing or recovering the calculated reserve surplus for each account/category/component over the associated average remaining life can help offset higher expenses in the future with the significant capital expenditures planned. Current and future customers will arguably receive the benefit from the reserve surplus through prospective lower depreciation rates. Considering the benefits the future expenditures will bring and the increasing economic benefits of the existing hydro plants, recovery over the remaining life is appropriate.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

**Manitoba Hydro 2015/16 & 2016/17 General Rate Application
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Chapter:	P. Lee Direct Testimony	Page No.:	3
Topic:	Appendix 11.49		
Subtopic:			
Issue:	ASL vs. ELG Depreciation Methodology Comparison		

PREAMBLE TO IR:

QUESTION:

- a) Please provide an assessment of the Gannett Flemings extrapolation analysis comparing ASL versus ELG found in Appendix 11.49.

RATIONALE FOR QUESTION:

RESPONSE:

(a)

Gannett Fleming's extrapolation analysis found in Appendix 11.49 appears to be mathematically correct. However, the ELG rates reflect composite rates of the separate ELG rates for each age. Under theoretically correct ELG, the separate ELG rates should be applicable for each age rather than a composite rate for the entire group. Ms. Lee is not an accountant and cannot say one way or another if the components listed are correct and necessary for ASL to be IFRS compliant. What can be said is that if vintage plant and reserve data is not maintained for each component category for which a separate ELG rate is applied, application of ELG will provide no better accuracy in depreciation rates or expenses. Just as additional componentization for IFRS ASL compliancy may be costly and require administrative efforts to maintain, so may the correct implementation of ELG.

- The difference between ASL depreciation expenses and ELG expenses is one of timing. The ASL method is based on the overall average service life of the all assets in a group. ELG is dependent on a curve shape to divide the investment into equal life groups with

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presumably the same lives. Each ELG group is depreciated with a separate rate for each age. The resulting expense are then summed for total depreciation for the component group.

- The accuracy of the overall ASL depreciation expense depends on the extent to which over and under depreciation is balanced for the group of assets. The accuracy of the ELG expense depends on the vintage plant and reserve data so accurate estimates of the subgroup lives can be made.

- Assuming that the expenses under ELG would be very similar as those produced using an IFRS-compliant ASL method, consideration of the additional administrative and regulatory costs involved with both ELG and IFRS-compliant ASL should be considered. Implementing theoretically correct ELG to determine annual depreciation expenses will result in applying a separate ELG rate to each age of each vintage, maintaining vintage actuarial plant and reserve data, annual reserve true-ups between actual and projected activity, ELG may result in higher overall expense compared to implementing IFRS-compliant ASL including costs associated with additional componentization.

Ms. Lee is not an accountant. She cannot say with specificity if the additional componentization MH and Mr. Kennedy assert will be needed for IFRS purposes is true. Gannett Fleming states that componentization for IFRS-compliance “would require a detailed analysis of virtually all of the current Manitoba Hydro accounts. Such an analysis would require the detailed manual review of over 70 years of detailed project capitalization records, many years of detailed retirement transactions, and a detailed retirement transactions, and a detailed review of the current investment in all accounts”¹. These reviews are required in order to determine the amount of investment by installation year for accounts that could be componentized further, and to appropriately develop retirement rate analysis for the support of an average life estimate for each of the new components. Additionally, the accumulated depreciation accounts would require the same level of componentization as the related asset accounts. The same analysis and review would appear to be very helpful in establishing the equal life groups under ELG.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

¹ Quoted from Appendix 11.49. Response to PUB Decision 43/13, February 27, 2015, page 1-3 regarding the scope of study to reasonably respond to PUB Order 43/13.