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2014/15 and 2015/16 Manitoba Hydro GRA
As of June 12, 2015

Tab	Description	Reference
Manitoba Hydro Depreciation Panel		
1	Manitoba Hydro 2005 Depreciation Study	A) Appendix 24: Depreciation Study - Calculated Annual Depreciation Accruals Related to Electric Plant at March 31, 2005, By Gannett Fleming. Filed in the 2012/13 and 2013/14 General Rate Application.

MANITOBA HYDRO

WINNIPEG, MANITOBA

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT MARCH 31, 2005

Gannett Fleming
Valuation and Rate Division

Harrisburg, Pennsylvania Calgary, Alberta Valley Forge, Pennsylvania

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Winnipeg, Manitoba

DEPRECIATION STUDY

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August 3, 2006

Manitoba Hydro
820 Taylor Avenue
Winnipeg, Manitoba, Canada
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Attention Mr. Vince Warden, Vice President
Finance & Administration & Chief Financial Officer

Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of Manitoba Hydro as of March 31, 2005. The attached report presents a description of the methods used in the estimation of depreciation, and a summary of the annual and accrued depreciation. The statistical analyses of service life and the detailed tabulations of annual and accrued depreciation are provided under separate cover.

We gratefully acknowledge the assistance of Manitoba Hydro personnel in the completion of the study.

Respectfully submitted,

GANNETT FLEMING, INC.
Valuation and Rate Division

LARRY E. KENNEDY
Manager, Calgary Office

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PART I. INTRODUCTION

MANITOBA HYDRO

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT MARCH 31, 2005

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Manitoba Hydro to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes applicable to the original cost of electric plant at March 31, 2005.

The depreciation accrual rates presented herein are based on generally accepted methods and procedures for calculating depreciation. The service life and net salvage estimates resulting from the study were based on analyses incorporating data through fiscal year 2005, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of service life and net salvage estimates for Manitoba Hydro and other electric utilities.

Part I, Introduction, of this report, contains statements with respect to the scope of the report, the basis of the study, and recommendations related to the use of the study results. Part II, Methods Used in the Estimation of Depreciation, presents the methods used in the estimation of average service lives, survivor curves and net salvage, and in the calculation of depreciation. Part III, Results of Study, presents a summary of annual and accrued depreciation. The statistical analyses of service life and the detailed tabulations of annual and accrued depreciation are presented in the supporting materials to this report.

BASIS OF THE STUDY

Depreciation. The annual and accrued depreciation were calculated by the straight line method using the average service life procedure and were applied on a whole life basis. The calculations were based on attained ages and estimated average service life, and forecasting net salvage characteristics for each depreciable group of assets. Variances between the calculated accrued depreciation and the book accumulated depreciation as at March 31, 2005 are amortized over the composite remaining life of the assets.

Service Life and Net Salvage Estimates. The method of estimating service life consisted of compiling the service life history of the plant accounts and subaccounts, reducing this history to trends through the use of acceptable analytic techniques, and forecasting the trend of survivors for each depreciable group on the basis of interpretations of past trends and consideration of Company plans for the future. The combination of historical trend and the estimated future trend yielded a complete pattern of life characteristics from which the average service life was derived.

The service life estimates used in the depreciation calculation incorporated unaged historical data through March 2005 obtained from the property records of the Company. Such data included plant additions, retirements, transfers and other activity. Annual retirements from the inception of the Company through 2005 were aged using the computed mortality method, providing a complete database that could be analyzed by the retirement rate method. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirement were obtained through discussions with operating and management personnel. The use of survivor curves to reflect the expected dispersion of retirement

provides a consistent method of estimating depreciation for electric plant. Iowa type survivor curves were used to depict the estimated survivor curves.

The estimates of net salvage were based on judgment which incorporated analyses of available historical data, a review of policies and outlook with management, a general knowledge of the electric utility industry, and comparisons of the salvage estimates from studies of other electric utilities. The estimates of net salvage are expressed as the average net salvage percent of the investment to be incurred or recovered upon its retirement.

RECOMMENDATIONS

The calculated annual depreciation accrual rates set forth herein apply specifically to electric plant in service as of March 31, 2005. Continued surveillance and periodic revisions are required to maintain use of appropriate depreciation rates. The survivor curves, amortization periods and net salvage percents determined in this study should be the basis for annual recalculations of the accrual rates. Complete depreciation studies, which re-evaluate these parameters, should be performed every three to five years.

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

DEPRECIATION

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy and obsolescence.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and salvage and the selection of group depreciation procedures. These subjects are discussed in the sections that follow.

ESTIMATION OF SURVIVOR CURVES

Survivor Curves. The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units that survive at successive ages. Inasmuch as survivor curves were used in the estimation of service lives, a discussion of the general concept of survivor curves and their derivation is presented.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, as well as other functions, such as the remaining life expectancy, the probable life, and the frequency curve can be calculated. Geometrically, the average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero, which is 100%. The average remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the attained age to the maximum age, and dividing this area by the percent surviving at the attained age. The probable life at any age is developed by adding the age and remaining life. The frequency curve presents the number of units retired in each age interval and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements in relationship to the average life and the relative height of the modes. The left moded curves are those in which the greatest frequency of

retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves are those in which the greatest frequency of retirement occurs at average service life. The right moded curves are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study, which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.[1] These type curves have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."[2] In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis[3] presenting his development of the fourth family consisting of the four O type survivor curves.

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[1]Winfrey, Robley. Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

[2]Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

[3]Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

Retirement Rate Method of Analysis. The estimates of the appropriate survivor curves for the depreciable property groups were based in part upon original survivor curves that incorporated historical plant retirement through 2005. Annual retirements from the inception of the Company were aged using the computed mortality method (described below) which provided a complete database to be analyzed by the retirement rate method. The retirement rate method was used for the analysis of retirements, except for the seven groups for which amortization accounting is proposed, as discussed later in this report. The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired and is explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"[4] and "Engineering Valuation and Depreciation."[5]

Computed Mortality Method. The computed mortality method of life analysis as used in this study is a procedure for statistically aging annual retirements prior to being analyzed by the retirement rate method. In this procedure, an aged plant balance is developed for the year prior to and for each test year during the given term of comparison. Each given balance is aged by a simulation procedure which applies a series of successive survivor curve trials using a specified Iowa type curve. The Iowa type survivor curve specified for each account is based on judgment incorporating the results of simulated plant record analyses, knowledge of the property and the type curves estimated for the account in other electric companies. Each trial consists of constructing a specific survivor curve at one-year intervals beginning with age 1/2. From this curve, survivor ratios are computed

[4]Winfrey, Robley, Supra Note 1.

[5]Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

and applied, by vintage, to the previous year's aged ending balance and the current test year's given gross addition. The resultant aged surviving balances also produce the aged retirements which are the differences between successive aged balances. The aged data are then analyzed by the retirement rate method as described above.

Simulated Plant Balance Method. The simulated plant balance method of life analysis is a statistical procedure by which experienced average service life and survivor characteristics are inferred through a series of approximations in which several average service life and survivor curve combinations are tested. The testing procedure consists of applying survivor ratios defined by the average service life and survivor curve combinations being tested to historical plant additions and comparing the resulting calculated, or simulated, surviving balances with the actual surviving balances.

Each year-end book balance is the sum of the plant surviving from the original annual additions. Each calculated year-end balance is the sum of the simulated plant surviving from the same original annual additions. The simulated survivors are calculated for each vintage by multiplying the original additions by the percent surviving corresponding to the age of the vintage as of the date of the year-end balances being simulated. This procedure is repeated until a series of simulated balances are calculated. The balances are then compared with the book balances to determine which average service life and survivor curve combinations result in calculated balances most nearly simulating the progression of actual balances.

The simulated plant record method is presented in greater detail in the Edison Electric Institute's publication, "Methods of Estimating Utility Plant Life."[6]

Field Trips and Interviews. In order to be familiar with the Company and observe a representative portion of the plant, a field trip and a series of interviews with operating personnel and management were conducted. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements were obtained during field trips and interviews. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The locations visited included the Brandon Generating Facility, and the Radisson and Henday Converter Stations, at the north terminal of the HVDC Electric Transmission line. Interviews with operating personnel from the following departments also were conducted:

- Fleet Maintenance
- HVDC Transmission
- Transmission Design
- Stations Standards and Design
- Distribution Planning and Design
- Communication Systems
- Generation

In addition, discussions with the management of Manitoba Hydro were held to discuss the depreciation study logistics, and to determine the timing for completion of the study.

[6] A Report of the Engineering Subcommittee of the Depreciation Accounting Committee, Edison Electric Institute. Publication No. 51-23. Published 1952.

Survivor Curve Judgments. Each retirement rate analysis resulted in a life table which, when plotted, formed an original survivor curve. Each original survivor curve, as plotted from the life table, represents the average survivor pattern experienced by several vintage groups during the experience band studied. Inasmuch as this survivor pattern does not necessarily describe the life characteristics, interpretation of the original survivor curves is required to use them as valid considerations in service life estimation. Iowa type curves were used in these interpretations. The survivor curve estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current policies and outlook as determined during conversations with operating personnel and management, field visits and survivor curve estimates from previous studies of this Company and other electric utilities.

Hydraulic Generation represents approximately 42% of the depreciable plant studied. In order to study the interim service life characteristics of this plant, the retirement data developed using the computed mortality method as described above was combined for all of the hydro generation plants into depreciation groups as follows:

- Civil Structures (mainly consisting of the concrete dam and powerhouse)
- Turbines and Generating Equipment
- Accessory Station Equipment
- Other Generation Assets
- Water Channels
- Community Development Costs

Inasmuch as the interim survivor curve estimates were developed based on the aggregated retirement information from all of the hydraulic generation sites for each of the above accounts, the depreciation parameters applied to the specific account data at each generation site are common.

The recommended depreciation rates incorporate a specific life span for each generation site. The Great Falls hydraulic generation site has a previously approved terminal date based on a 110 year period from the inception of generation at that site, while all other generation sites had a terminal date based on a 100 year period from the inception of generation at each site. With the purchase of the Winnipeg Hydro Electric system, Manitoba Hydro acquired two generation facilities that were part of the Winnipeg system (Pointe du Bois and Slave Falls). The terminal date of these facilities was based on the company's assessment of their current condition and the economic consideration of operating the facilities in their current condition. The life span dates represent the period over which the Company aims to recover its currently invested capital, based on its review of the social, environmental, and economic issues surrounding hydraulic generation.

Investments in the Civil Structures accounts comprise approximately 46% of the total hydraulic electric generation investment. The retirements, additions and other plant transactions through 2005 were studied. The original survivor curve indicates only a modest level of retirement activity through age 55. A small increase in the level of retirement ratios are indicated thereafter. These concrete structures must be maintained in a manner such that they can be safely relied on for river control purposes. As such, the Company undertakes periodic restorative maintenance in order that the structure may be operated in a safe manner. Such restorative activity is apparent in the life tables beginning at age 55. Operating personnel have indicated that future maintenance of these civil structures will continue on the newer structures in much the same pattern as has been required on the older concrete dams. The historic indications of interim retirement have followed a retirement pattern similar to a 100-R3 Iowa curve. As the future pattern of

maintenance is estimated to be similar as that undertaken in the past, an Iowa 100-R3 curve was considered appropriate to represent the interim retirements through the life span date.

Investments in the Turbine and Generator account comprise approximately 23% of the total hydraulic electric generation investment. The retirements, additions and other plant transactions through 2005 were studied. The original survivor curve indicates only a modest level of retirement activity through age 35, with more significant retirements starting at age 44.

Additionally, it is anticipated that the pace of replacement of certain components of the generation equipment will increase in the near future. Generating units installed in the 1950's and 1960's will undergo upgrades to a number of the component units, resulting in significant retirements of plant that is 40-60 years old. Recognition of these future retirements combined with the changes in accounting policy and retirement procedures have resulted in the selection of a 65-R4 interim retirement curve.

Transmission Lines comprise almost 6% of depreciable plant studied, with Account 3030 – Metal Towers comprising the majority of this investment. The retirements, additions and other plant transactions through 2005 were studied. The Company had a previously approved life estimate of 85 years for this account. The original survivor curve indicates only a modest level of retirement activity through age 42, with an indication of increased retirement activity thereafter. The transmission towers have withstood environmental influences such as ice storms, severe winter conditions and corrosion. Inasmuch as there is no current plan to retire assets that would significantly change the historic retirement patterns for this plant, an increase in life to the Iowa 85-R3 survivor is warranted.

Sub-Stations comprise approximately 18% of the depreciable plant studied. Investments in the Accessory Station Equipment (Accounts 4420 and 4520) comprise approximately 54% of the Sub-Station plant investment. The retirements, additions and other plant transactions through 2005 were studied for these accounts. The original survivor curve indicates a moderate level of retirement activity starting at age 15 (Account 4420) and at age 20 (Account 4520). The Iowa 43-R3 survivor curve is selected to represent the life characteristics for Account 4420. This estimate reflects the Company's expectations for future retirement activity and is within the typical range of lives used in the industry. The Iowa 34-S5 selected for the investment in the High Voltage Direct Current (HVDC) system (Account 4520) reflects an expectation that the HVDC system will have a slightly shorter life, due to the technology used in the HVDC system.

Investments in Serialized Equipment (Accounts 4020 and 4120) comprise over 38% of the Sub-Station plant investment. The retirements, additions and other plant transactions through 2005 were studied for these accounts. The Company had a previously approved life estimate of 40 years (Account 4020) and 30 years (Account 4120) for these accounts. The original survivor curve for the alternating current (AC) system (Account 4020) indicates only a modest, but consistent level of retirement activity through age 35. Manitoba Hydro has no specific plans that would change the historic retirement pattern in the future. Thus, the Iowa 37-R2 curve is considered appropriate for this account.

As indicated by the original survivor curve the rates of retirement for the Serialized Equipment of the HVDC system (Account 4120) are greater than for similar equipment on

the AC system due to the technology used. The selected Iowa 32-R3 Iowa curve reflects this increased retirement activity and is considered appropriate for this account.

Distribution systems comprise 16% of the depreciable plant studied. Of this investment, Account 3996 – Poles, Conductors, and Attachments constitutes 47% of the surviving plant. The retirements, additions and other plant transactions through 2005 were studied for these accounts. The Company had a previously approved life estimate of 28 years for this account. It is anticipated that the current trend of slightly decreasing retirements will continue over the next few years. Therefore, the 31-R2 Iowa curve, which was developed based on the retirement history of this account is appropriate.

The survivor curves for the remaining electric utility accounts were based on similar considerations of historical analysis, management outlook and estimates for this Company and other electric utilities.

SALVAGE ESTIMATION

The estimates of salvage were based, in part, on the analysis of historical data for the years 1998 through 2005, and in larger part, on consideration of several factors including the net salvage characteristics of other electric utility properties, a knowledge of management's plans, review of accounting policies and procedures, and interviews held with operating personnel.

Continued use of the currently approved net savage percentages for Manitoba Hydro's generation accounts is recommended. The net salvage rates used in the development of the annual depreciation accrual rates in this study represent an estimate of the costs of removal for the on-going retirement of plant that will be required prior to the

terminal life of the facilities. The estimates of salvage are expressed as the average net percent of the cost of plant.

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

Group Depreciation Procedures. 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. There are two primary group procedures, namely, the average service life and equal life group procedures.

In the average service life procedure, the rate of annual depreciation is based on the average service life of the group, and this rate is applied to the surviving balances 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 the 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 the equal life group procedure, also known as the unit summation procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life unit. Although, in the opinion of Gannett Fleming, the equal life group procedure is superior to the average service life procedure in matching depreciation expense and consumption of service value, the

average service life procedure was used in order to conform to past Company practices and for consistency with the practices of other subsidiary companies.

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period of the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts during each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for certain General Plant accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts and their amortization periods are as follows:

Account		Amortization Period, Years
2350	Easements	75
6380	Shop/Garage Tools and Equipment	15
6480	Computer Applications	10
6580	Computer Equipment	5
6680	Office Furniture and Equipment	15
7777	Hot Water Tanks	15
8888	Bill Inserter	7
9999	Fire Retardant Clothing	5

For the purposes of calculating the amortization rates for the above accounts, the amortization period without any true-up amounts were used. As such, the amortization rate is equal to 1 divided by the amortization period as referenced in the table above.

MONITORING OF BOOK ACCUMULATED DEPRECIATION

The calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals if current forecasts of service life characteristics and net salvage materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the adequacy of the current book accumulated depreciation. The use of this measure is recommended along with the amortization of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The recommended amortization of the variances between the book accumulated depreciation and the calculated accrued depreciation is based on an amortization period equal to the composite remaining life for each property group.

The composite remaining life for use in amortizing accumulated depreciation variances is computed by dividing the sum of the weighted future accruals by the sum of the weighted annual accruals in accordance with the following formula:

$$\text{CompositeRemainingLife} = \frac{\Sigma\left(\frac{\text{Book Cost}}{\text{Average Service Life}} \times \text{Remaining Life}\right)}{\Sigma \frac{\text{Book Cost}}{\text{Average Service Life}}}.$$

PART III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated whole life annual and accrued depreciation, and the annual provision for true-up, are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the straight line average service life method of depreciation based on estimates which reflect considerations of current historical evidence and expected future conditions.

The calculated accrued depreciation represents that portion of the depreciable cost which will not be allocated to future annual expense through depreciation accruals if current forecasts of service life and salvage materialize and are used as a basis for straight line average service life depreciation accounting.

DESCRIPTION OF DEPRECIATION TABULATIONS

A summary of the results of the study, as applied to the original cost of electric plant at March 31, 2005, is presented in Tables 1 and 2 on pages III-3 through III-6. Table 1 sets forth, by account, the estimated survivor curve, net salvage percent, original cost, the calculated annual and accrued depreciation, the annual true-up provision, and the total depreciation expense relating to electric plant. Table 2 presents the calculation of the annual true-up provision.

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TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST AND ANNUAL ACCRUALS
FOR THE TWELVE MONTHS ENDED MARCH 31, 2005

Acct	Depreciable Group (1)	Estimated Survivor Curve (2)	Estimated Net Salvage (3)	Surviving Original Cost at 03/31/2005 (4)	Calculated Annual Accrual Amount (5)	Calculated Annual Accrual Rate (6)=(5)/(4)	Annual Provision For True-Up (7)	Total Depreciation Expense (8)=(5)+(7)	Total Depreciation Rate (%) (9)=(8)/(4)
	HYDRAULIC GENERATION								
	GREAT FALLS - TERMINAL DATE 2052/03/31								
1001	CIVIL	100-R3	(10)	48,455,542.08	800,465	1.65	(158,211)	642,254	1.33
1002	TURBINES & GENERATORS	65-R4	(10)	36,031,221.88	788,241	2.19	(3,536)	784,705	2.18
1003	ACCESSORY STATION EQUIPMENT	50-R3	(10)	22,816,389.69	543,506	2.38	(19,706)	523,800	2.30
1004	OTHER	50-R1.5	(10)	1,417,173.00	36,139	2.55	(7,657)	28,482	2.01
	POINT DU BOIS - TERMINAL DATE 2015/03/31								
1011	CIVIL	100-R3	(10)	9,479,665.60	1,010,986	10.66	103,140	1,114,126	11.75
1012	TURBINES & GENERATORS	65-R4	(10)	6,087,550.51	630,195	10.35	75,329	705,524	11.59
1013	ACCESSORY STATION EQUIPMENT	50-R3	(10)	923,833.26	95,380	10.32	10,722	106,102	11.48
1014	OTHER	50-R1.5	(10)	2,833,500.49	281,041	9.92	43,754	324,795	11.46
	SEVEN SISTERS - TERMINAL DATE 2052/03/31								
1021	CIVIL	100-R3	(10)	49,147,994.46	794,509	1.62	(149,834)	644,675	1.31
1022	TURBINES & GENERATORS	65-R3	(10)	31,901,458.39	677,977	2.13	(78,166)	599,811	1.88
1023	ACCESSORY STATION EQUIPMENT	50-R3	(10)	27,487,771.82	660,481	2.40	(17,267)	643,214	2.34
1024	OTHER	50-R1.5	(10)	1,461,665.00	34,881	2.39	(3,662)	31,219	2.14
	SLAVE FALLS - TERMINAL DATE 2063/03/31								
1031	CIVIL	100-R3	(10)	44,431,631.70	840,682	1.89	4,228	844,910	1.90
1032	TURBINES & GENERATORS	65-R3	(10)	11,100,000.00	223,443	2.01	(414)	223,029	2.01
1033	ACCESSORY STATION EQUIPMENT	50-R3	(10)	15,665,091.51	356,843	2.28	(4,109)	352,734	2.25
1034	OTHER	50-R1.5	(10)	3,908,585.13	94,163	2.41	415	94,578	2.42
	PINE FALLS - TERMINAL DATE 2052/03/31								
1041	CIVIL	100-R3	(10)	21,432,798.06	343,444	1.60	(11,187)	332,257	1.55
1042	TURBINES & GENERATORS	65-R3	(10)	9,542,696.55	178,194	1.87	3,711	181,905	1.91
1043	ACCESSORY STATION EQUIPMENT	50-R3	(10)	13,115,409.36	299,829	2.29	(27,827)	272,002	2.07
1044	OTHER	50-R1.5	(10)	1,393,833.00	32,177	2.31	(4,140)	28,037	2.01
1045	COMMUNITY DEVELOPMENT COSTS	Square	0	3,032,283.97	55,764	1.84	1,903	57,667	1.90
	MCARTHUR FALLS - TERMINAL DATE 2055/03/31								
1061	CIVIL	100-R3	(10)	26,226,931.81	403,185	1.54	(15,211)	387,974	1.48
1062	TURBINES & GENERATORS	65-R3	(10)	5,222,634.00	88,949	1.70	(37,799)	51,150	0.98
1063	ACCESSORY STATION EQUIPMENT	50-R3	(10)	7,425,658.40	169,045	2.28	(19,646)	149,399	2.01
1064	OTHER	50-R1.5	(10)	279,236.00	6,568	2.35	(281)	6,287	2.25
	KELSEY - TERMINAL DATE 2062/03/31								
1081	CIVIL	100-R3	(10)	50,162,280.00	677,992	1.35	(17,256)	660,736	1.32
1082	TURBINES & GENERATORS	65-R3	(10)	19,609,647.21	348,941	1.78	(32,820)	316,121	1.61
1083	ACCESSORY STATION EQUIPMENT	50-R3	(10)	24,158,667.49	539,755	2.23	(46,264)	493,491	2.04
1084	OTHER	50-R1.5	(10)	12,773,141.95	293,986	2.30	(6,156)	287,830	2.25
	GRAND RAPIDS - TERMINAL DATE 2067/03/31								
1111	CIVIL	100-R3	(10)	91,433,284.25	1,173,919	1.28	(65,181)	1,108,738	1.21
1112	TURBINES & GENERATORS	65-R3	(10)	121,780,992.04	2,252,692	1.85	(26,742)	2,225,950	1.83
1113	ACCESSORY STATION EQUIPMENT	50-R3	(10)	18,757,574.08	414,703	2.21	(47,659)	367,044	1.96
1114	OTHER	50-R1.5	(10)	13,596,950.74	306,871	2.26	38,272	345,143	2.54
1115	COMMUNITY DEVELOPMENT COSTS	Square	0	75,901,662.79	1,092,461	1.44	(48,375)	1,044,086	1.38
	KETTLE - TERMINAL DATE 2072/03/31								
1141	CIVIL	100-R3	(10)	230,277,240.00	2,873,984	1.25	(89,417)	2,784,567	1.21
1142	TURBINES & GENERATORS	65-R3	(10)	74,102,343.81	1,262,110	1.70	(91,589)	1,170,521	1.58
1143	ACCESSORY STATION EQUIPMENT	50-R3	(10)	29,651,391.42	652,734	2.20	(74,476)	578,258	1.95
1144	OTHER	50-R1.5	(10)	26,483,094.00	591,637	2.23	(58,632)	533,005	2.01
	LAURIE RIVER - TERMINAL DATE 2058/03/31								
1161	CIVIL	100-R3	(10)	4,978,160.54	94,020	1.89	1,599	95,619	1.92
1162	TURBINES & GENERATORS	65-R3	(10)	1,603,857.00	33,149	2.07	(91)	33,058	2.06
1163	ACCESSORY STATION EQUIPMENT	50-R3	(10)	3,923,642.00	90,539	2.31	(2,735)	87,804	2.24
1164	OTHER	50-R1.5	(10)	1,797,833.00	43,361	2.41	349	43,710	2.43
	JENPEG - TERMINAL DATE 2078/03/31								
1191	CIVIL	100-R3	(10)	121,633,421.94	1,523,871	1.25	(1,876)	1,521,995	1.25
1192	TURBINES & GENERATORS	65-R3	(10)	77,029,952.77	1,310,516	1.70	(34,885)	1,275,631	1.66
1193	ACCESSORY STATION EQUIPMENT	50-R3	(10)	35,001,595.66	770,035	2.20	(93,076)	676,959	1.93
1194	OTHER	50-R1.5	(10)	6,134,242.10	135,069	2.20	(38,100)	96,969	1.58
	LAKE WPG. REGULATION - TERMINAL DATE 2078/03/31								
1196	CIVIL	100-R3	(10)	10,086,810.75	125,025	1.24	17,557	142,582	1.41
1197	WATER CHANNELS	100-R3	(10)	86,720,256.00	1,058,553	1.22	97,280	1,156,833	1.33
1198	COMMUNITY DEVELOPMENT COSTS	Square	0	269,780,946.86	3,556,781	1.23	(297,992)	3,258,789	1.12
	CHURCHILL R DIVERSION - TERMINAL DATE 2078/03/31								
1216	CIVIL	100-R3	(10)	132,121,292.42	1,638,658	1.24	147,128	1,785,786	1.35
1217	WATER CHANNELS	100-R3	(10)	92,712,703.06	1,145,493	1.24	(61,905)	1,083,588	1.17
1218	COMMUNITY DEVELOPMENT COSTS	Square	0	236,498,767.11	2,892,298	1.22	(321,628)	2,570,670	1.09
	LONG SPRUCE - TERMINAL DATE 2078/03/31								
1221	CIVIL	100-R3	(10)	304,589,267.00	3,797,209	1.25	(9,418)	3,787,791	1.24
1222	TURBINES & GENERATORS	65-R4	(10)	143,834,015.76	2,437,091	1.69	(32,774)	2,404,317	1.67
1223	ACCESSORY STATION EQUIPMENT	50-R3	(10)	57,227,221.08	1,258,999	2.20	(293,035)	965,964	1.69
1224	OTHER	50-R1.5	(10)	30,436,817.72	669,733	2.20	35,148	704,881	2.32
	LIMESTONE - TERMINAL DATE 2092/03/31								
1231	CIVIL	100-R3	(10)	808,766,114.00	10,068,923	1.24	(40,842)	10,028,081	1.24
1232	TURBINES & GENERATORS	65-R4	(10)	421,995,580.75	7,148,605	1.69	(377,348)	6,771,257	1.60
1233	ACCESSORY STATION EQUIPMENT	50-R3	(10)	164,067,384.45	4,049,482	2.20	(317,403)	3,732,079	2.03
1234	OTHER	50-R1.5	(10)	23,572,385.00	518,592	2.20	7,222	525,814	2.23
	TOTAL HYDRO GENERATION			4,264,019,121.40	66,294,874		(2,498,571)	63,796,303	
	THERMAL GENERATION								
	BRANDON 1-4			24,847,855.00					
1401	GENERATION - TERMINAL DATE 2000/03/31								
1401.1	SYNCHRONOUS CONDENSER - TERMINAL DATE 2010/03/31	Square	0	4,646,669.00	119,327	2.46	(99,079)	20,248	0.42
	BRANDON UNIT 5								
1411	GENERATION - TERMINAL DATE 2020/03/31	65-R3	0	43,536,932.33	1,618,074	3.72	(5,264)	1,613,810	3.71
	SELKIRK 1 & 2								
1421	GENERATION - TERMINAL DATE 2020/03/31	65-R3	0	62,637,199.00	2,379,864	3.80	(521,304)	1,858,560	2.97
1431	BRANDON COMBUSTION TURBINE	25-SQ	(10)	181,413,523.03	7,982,195	4.40 *	-	7,982,195	4.40
	THERMAL LIFE ASSURANCE								
2001	BRANDON 1-4 Terminal Date 2001/03/31			11,926,002.00					
2011	BRANDON 5 Terminal Date 2020/03/31	65-R3	0	76,530,324.00	3,266,641	4.27	444,753	3,711,394	4.85
2010	SELKIRK Terminal Date 2020/03/31	65-R3	0	45,528,573.00	1,842,534	4.05	(724,366)	1,118,168	2.46
	TOTAL THERMAL GENERATION			451,267,297.36	17,209,635		(905,260)	16,284,127	
	DIESEL GENERATION								
2918	STRUCTURES & IMPROVEMENTS	18-R2	(5)	8,196,278.00	478,499	5.84	117,477	595,976	7.27
4318	ACCESSORY STATION EQUIPMENT	14-R2.5	(5)	13,488,708.98	1,011,249	7.50	503,973	1,515,222	11.23

MANITOBA HYDRO

TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST AND ANNUAL ACCRUALS
FOR THE TWELVE MONTHS ENDED MARCH 31, 2005

Acct	Depreciable Group	Estimated Survivor Curve	Estimated Net Salvage	Surviving Original Cost at 03/31/2005	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	Annual Provision For True-Up	Total Depreciation Expense	Total Depreciation Rate (%)
	(1)	(2)	(3)	(4)	(5)	(6)=(5)/(4)	(7)	(8)=(5)+(7)	(9)=(8)/(4)
4619	ENG & GNRTR - POST - 1997	10-R2	0	17,160,326.21	1,716,033	10.00	476,735	2,192,768	12.78
	TOTAL DIESEL			38,845,313.19	3,205,781		1,098,185	4,303,966.00	
	TRANSMISSION LINES								
3030	METAL TOWERS	85-R3	(25)	243,313,896.28	3,588,880	1.48	(50,357)	3,538,523	1.45
3230	POLES & FIXTURES	55-R3	(35)	82,933,264.23	2,037,670	2.46	116,688	2,154,358	2.60
3430	CONCRETE POLES	75-R4	(10)	261,677.38	3,829	1.46	(142)	3,688	1.41
3520	GROUNDLINE TREATMENT	10-SQ	0	341,944.00	34,194	10.00 *	-	34,194	10.00
3630	CONDUCTORS & DEVICES	60-L4	(15)	221,374,473.46	4,251,497	1.92	(163,379)	4,088,118	1.85
3930	UNDERGROUND CONDUCTOR & DEVICES	45-R3	(5)	1,163,882.47	27,130	2.33	563	27,693	2.38
4930	ROADS, TRAILS & BRIDGES	50-R4	(10)	3,433,388.00	75,535	2.20	1,550	77,085	2.25
	TOTAL TRANSMISSION LINES			552,922,525.82	10,018,734		(95,077)	9,923,657.00	
	HVDC PURCHASE - GOVERNMENT OF CANADA. TRANSMISSION								
3031	METAL TOWERS	85-R3	(25)	79,090,581.00	1,166,586	1.47	348,211	1,514,797	1.92
3631	CONDUCTORS & DEVICES	60-L4	(15)	56,582,374.00	1,086,664	1.92	252,951	1,339,615	2.37
	TOTAL HVDC TRANSMISSION LINES			135,672,955.00	2,253,250		601,162	2,854,412.00	
	SUB - TRANSMISSION								
3045	METAL TOWERS	46-S3	(25)	3,768,259.70	102,214	2.71	7,607	109,821	2.91
3995	POLES, CONDUCTOR & ATTACHMENTS	38-R2.5	(30)	200,928,128.00	6,869,733	3.42	533,906	7,403,639	3.68
3545	GROUNDLINE TREATMENT	10-SQ	0	247,227.61	24,723	10.00 *	-	24,723	10.00
3945	UNDERGROUND CONDUCTOR & DEVICES	35-R3	(5)	13,200,208.03	396,402	3.00	45,863	442,265	3.35
4045	SERIALIZED EQUIPMENT	20-R1.5	(15)	1,035,110.98	59,519	5.75	2,663	62,182	6.01
4945	ROADS, TRAILS & BRIDGES	50-R4	(10)	298,654.43	5,841	1.96	40	5,881	1.97
	TOTAL SUB-TRANSMISSION			219,477,588.95	7,458,432		590,079	8,048,511.00	
	SUB - STATIONS								
2620	STRUCTURES & IMPROVEMENTS	57-L4	(5)	85,863,128.00	1,577,735	1.84	(151,910)	1,425,825	1.66
3320	POLES & FIXTURES	42-R4	(35)	5,459,523.29	175,414	3.21	8,237	183,651	3.36
4020	SERIALIZED EQUIPMENT	37-R2	(15)	400,150,001.18	12,424,658	3.11	(470,668)	11,953,990	2.99
4120	SERIALIZED EQUIPMENT - (prev. in 4020) - HVDC SYSTEM	32-R3	(15)	309,388,775.21	11,136,449	3.60	581,355	11,717,804	3.79
4420	ACCESSORY STATION EQUIPMENT	43-R3	(15)	408,942,372.21	10,957,611	2.68	(851,594)	10,106,017	2.47
4520	ACC. STN. EQP (prev. inc. in 4420) - HVDC SYSTEM	34-S5	(15)	591,978,664.00	20,014,299	3.38	4,049,577	24,064,376	4.07
4920	ROADS, TRAILS & BRIDGES	50-R4	(10)	3,596,605.00	79,125	2.20	(718)	78,407	2.18
6020	SUPERVISORY	20-R3	(15)	31,317,337.27	1,700,812	5.43	(8,678)	1,692,134	5.40
6120	SUPR. EQP. (prev. inc. in 6020) -HVDC SYSTEM	20-R3	(15)	15,561,999.56	855,910	5.50	(76,829)	779,081	5.01
	TOTAL SUBSTATIONS			1,852,258,406.72	58,922,513		3,078,772	62,001,285.00	
	HVDC PURCHASE - GOVERNMENT OF CANADA SUB - STATION								
2621	STRUCTURES & IMPROVEMENTS - CONCRETE	57-L4	(5)	13,868,540.00	254,834	1.84	4,189	259,023	1.87
4021	SERIALIZED EQUIPMENT	32-R2	(15)	30,075,636.00	1,082,573	3.60	(268,155)	814,418	2.71
4421	ACCESSORY STATION EQUIPMENT	34-S5	(15)	21,098,156.00	713,329	3.38	1,264,579	1,977,908	9.37
	TOTAL HVDC SUB-STATION			65,042,332.00	2,050,736		1,000,613	3,051,349.00	
	DISTRIBUTION -TOWN AND RURAL								
3998	POLES, CONDUCTOR & ATTACHMENTS	31-R2	(40)	742,357,750.77	33,569,418	4.52	(68,927)	33,500,491	4.51
3540	GROUNDLINE TREATMENT	10-SQ	0	12,097,008.13	1,209,701	10.00 *	-	1,209,701	10.00
3940	UNDERGROUND CONDUCTORS & DEVICES	45-R3	(5)	355,407,881.85	8,284,558	2.33	382,480	8,667,038	2.44
4040	SERIALIZED EQUIPMENT	20-R1.5	(15)	245,792,607.91	14,129,921	5.75	(1,625,420)	12,504,501	5.09
5040	STREET LIGHTING	38-R1.5	(15)	119,079,645.19	3,808,976	3.20	(830,724)	2,967,252	2.49
5340	SERVICES	28-R2	(40)	94,381,823.48	4,717,204	5.00	30,064	4,747,268	5.03
	TOTAL DISTRIBUTION			1,569,116,717.31	65,717,778		(2,121,527)	63,596,251.00	
	DISTRIBUTION - METERS								
5647	METERS	29-R3	0	38,477,059.11	1,327,459	3.45	7,561	1,335,020	3.47
5748	METER TRANSFORMERS	68-R4	0	5,804,084.19	85,320	1.47	(17,624)	67,696	1.17
	TOTAL DISTRIBUTION - METERS			44,281,143.30	1,412,779		(10,063)	1,402,716.00	
	COMMUNICATION								
2670	STRUCTURES & IMPROVEMENTS	57-L4	(5)	19,974,852.40	367,038	1.84	2,680	369,718	1.85
6070	COMMUNICATION & CONTROL EQUIPMENT	17-R2	(5)	205,010,861.54	12,647,694	6.17	(317,590)	12,330,104	6.01
6071	FIBRE OPTIC CABLE	40-R3	(5)	83,552,792.48	2,193,261	2.63	(28,701)	2,164,560	2.59
6072	FIBRE OPTIC ELECTRONICS	15-R3	0	21,859,733.41	1,458,044	6.67	8,288	1,466,332	6.71
	TOTAL COMMUNICATION			330,398,239.83	16,666,037		(335,323)	16,330,714.00	
	BUILDINGS								
2350	BUILDINGS - WOOD	60-R2.5	(5)	42,301,401.73	741,755	1.75	(26,907)	714,848	1.69
2650	BUILDINGS - CONCRETE	57-L4	(5)	61,916,847.06	1,137,722	1.84	92,284	1,230,006	1.99
2950	BUILDINGS - METAL	55-S2.5	(5)	40,421,020.38	772,446	1.91	(10,628)	761,818	1.88
	TOTAL BUILDINGS			144,639,269.17	2,651,923		54,749	2,706,672.00	
	GENERAL EQUIPMENT								
2299	EASEMENTS	75-SQ	0	38,517,669.00	512,285	1.33 *	-	512,285	1.33
6380	TOOLS, SHOP / GARAGE	15-SQ	0	57,019,241.16	3,803,183	6.67 *	-	3,803,183	6.67
6480	COMPUTER APPLICATION	10-SQ	0	125,918,602.96	12,591,860	10.00 *	-	12,591,860	10.00
6580	COMPUTER EQUIPMENT - POST 1999	5-SQ	0	85,365,522.75	17,073,105	20.00 *	-	17,073,105	20.00
6680	OFFICE FURNITURE & EQUIPMENT	15-SQ	0	14,233,927.91	949,403	6.67 *	-	949,403	6.67
7777	HOT WATER TANKS	15-SQ	0	3,448,160.23	229,992	6.67 *	-	229,992	6.67
8888	BILL INSERTER	7-SQ	0	179,923.00	25,711	14.29 *	-	25,711	14.29
9999	FIRE RETARDANT CLOTHING	5-SQ	0	2,622,291.93	524,458	20.00 *	-	524,458	20.00
	TOTAL GENERAL EQUIPMENT			327,305,338.96	35,709,997		-	35,709,997	
	VEHICLES								
8060	PASSENGER VEHICLES	8-L0.5	20	1,150,412.70	115,041	10.00	(30,614)	84,427	7.34
8161	LIGHT TRUCKS	9-R3	15	41,774,796.30	3,930,207	9.41	(127,551)	3,802,656	9.10
8262	HEAVY TRUCKS	15-R3	12	44,695,093.83	2,623,423	5.87	95,822	2,719,245	6.08
8366	CONSTRUCTION EQUIPMENT	15-R2	20	10,338,661.00	551,671	5.34	(79,505)	472,166	4.57
8467	LARGE SOFT -TRACK EQUIPMENT	22-L0.5	10	6,375,762.55	261,067	4.09	(45,107)	215,960	3.39
8568	TRAILERS	31-R0.5	20	11,182,170.89	288,947	2.58	(65,144)	223,803	2.00
8865	MISCELLANEOUS	9-L2	10	5,243,923.17	524,340	10.00	93,723	618,063	11.79
	TOTAL VEHICLES			120,760,820.44	8,294,716		(158,376)	8,136,340	
	TOTAL DEPRECIABLE PLANT REVIEWED			10,115,907,069.45	297,867,185		299,363	298,146,300	2.95

* Accounts are depreciated using the amortization method. Amortization rate equals 1 divided by the amortization period.

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TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AT MARCH 31, 2005

Acct	Description	Surviving Original Cost 03/31/2005	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-Up	True-Up Rate (%)
	(1)	(2)	(3)	(4)	(5) = (3)-(4)	(6) = (5)/(3)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
	HYDRAULIC GENERATION								
	GREAT FALLS - TERMINAL DATE 2052/03/31								
1001	CIVIL	48,455,542.08	18,234,465	25,227,390	(6,992,925)	-38.4	44.2	(158,211)	(0.33)
1002	TURBINES & GENERATORS	36,031,221.86	6,742,159	6,893,518	(151,359)	-2.2	42.8	(3,536)	(0.01)
1003	ACCESSORY STATION EQUIPMENT	22,816,389.69	5,664,172	6,413,011	(748,839)	-13.2	38.0	(19,706)	(0.09)
1004	OTHER	1,417,173.00	241,633	528,006	(286,373)	-118.5	37.4	(7,657)	(0.54)
	POINT DU BOIS - TERMINAL DATE 2015/03/31								
1011	CIVIL	9,479,665.60	1,086,967	138,079	948,888	87.3	9.2	103,140	1.09
1012	TURBINES & GENERATORS	6,087,550.51	867,626	174,603	693,023	79.9	9.2	75,329	1.24
1013	ACCESSORY STATION EQUIPMENT	923,833.26	132,492	33,848	98,644	74.5	9.2	10,722	1.16
1014	OTHER	2,833,500.49	569,830	171,673	398,157	69.9	9.1	43,754	1.54
	SEVEN SISTERS - TERMINAL DATE 2052/03/31								
1021	CIVIL	49,147,994.46	20,050,599	26,583,368	(6,532,769)	-32.6	43.6	(149,834)	(0.30)
1022	TURBINES & GENERATORS	31,901,458.39	6,846,160	10,183,832	(3,337,672)	-48.8	42.7	(78,166)	(0.25)
1023	ACCESSORY STATION EQUIPMENT	27,487,771.82	6,466,749	7,121,178	(654,429)	-10.1	37.9	(17,267)	(0.06)
1024	OTHER	1,461,665.00	615,053	739,932	(124,879)	-20.3	34.1	(3,662)	(0.25)
	SLAVE FALLS - TERMINAL DATE 2063/03/31								
1031	CIVIL	44,431,631.70	2,069,803	1,833,894	235,909	11.4	55.8	4,228	0.01
1032	TURBINES & GENERATORS	11,100,000.00	551,892	573,500	(21,608)	-3.9	52.2	(414)	(0.00)
1033	ACCESSORY STATION EQUIPMENT	15,665,091.51	845,290	1,034,326	(189,036)	-22.4	46.0	(4,109)	(0.04)
1034	OTHER	3,908,585.13	195,879	177,726	18,153	9.3	43.7	415	0.01
	PINE FALLS - TERMINAL DATE 2052/03/31								
1041	CIVIL	21,432,798.06	9,086,633	9,559,824	(473,191)	-5.2	42.3	(11,187)	(0.05)
1042	TURBINES & GENERATORS	9,542,696.55	4,828,277	4,711,369	116,908	2.4	31.5	3,711	0.04
1043	ACCESSORY STATION EQUIPMENT	13,115,409.36	5,668,205	8,650,498	(982,293)	-17.3	35.3	(27,827)	(0.21)
1044	OTHER	1,393,833.00	818,461	916,244	(99,783)	-12.2	24.1	(4,140)	(0.30)
1045	COMMUNITY DEVELOPMENT COSTS	3,032,283.97	458,101	370,011	88,090	19.2	46.3	1,903	0.06
	MCARTHUR FALLS - TERMINAL DATE 2055/03/31								
1061	CIVIL	26,226,931.81	10,628,262	11,315,784	(687,522)	-6.5	45.2	(15,211)	(0.06)
1062	TURBINES & GENERATORS	5,222,634.00	3,723,036	4,603,762	(880,726)	-23.7	23.3	(37,799)	(0.72)
1063	ACCESSORY STATION EQUIPMENT	7,425,698.40	3,202,095	3,928,985	(726,890)	-22.7	37.0	(19,646)	(0.26)
1064	OTHER	279,238.00	89,471	98,953	(9,482)	-10.6	33.8	(281)	(0.10)
	KELSEY - TERMINAL DATE 2062/03/31								
1081	CIVIL	50,162,280.00	21,540,831	22,398,466	(857,635)	-4.0	49.7	(17,256)	(0.03)
1082	TURBINES & GENERATORS	19,609,647.21	9,524,019	10,689,133	(1,165,114)	-12.2	35.5	(32,820)	(0.17)
1083	ACCESSORY STATION EQUIPMENT	24,158,687.49	7,710,573	9,422,324	(1,711,751)	-22.2	37.0	(46,264)	(0.19)
1084	OTHER	12,773,141.95	3,507,083	3,729,947	(222,864)	-6.4	36.2	(6,156)	(0.05)
	GRAND RAPIDS - TERMINAL DATE 2067/03/31								
1111	CIVIL	91,433,284.25	38,577,570	42,019,111	(3,441,541)	-8.9	52.8	(65,181)	(0.07)
1112	TURBINES & GENERATORS	121,780,992.04	18,622,100	19,993,976	(1,371,878)	-7.4	51.3	(26,742)	(0.02)
1113	ACCESSORY STATION EQUIPMENT	18,757,574.08	6,446,673	8,200,522	(1,753,849)	-27.2	36.8	(47,659)	(0.25)
1114	OTHER	13,598,950.74	4,062,380	2,761,134	1,301,246	32.0	34.0	38,272	0.28
1115	COMMUNITY DEVELOPMENT COSTS	75,901,562.79	9,020,400	11,985,805	(2,965,405)	-32.9	61.3	(48,375)	(0.06)
	KETTLE - TERMINAL DATE 2072/03/31								
1141	CIVIL	230,277,240.00	89,291,512	94,397,200	(5,105,688)	-5.7	57.1	(89,417)	(0.04)
1142	TURBINES & GENERATORS	74,102,343.61	35,024,535	38,413,318	(3,388,783)	-9.7	37.0	(91,589)	(0.12)
1143	ACCESSORY STATION EQUIPMENT	29,651,391.42	11,728,004	14,230,401	(2,502,397)	-21.3	33.6	(74,478)	(0.25)
1144	OTHER	26,483,094.00	5,881,605	8,232,765	(2,351,160)	-40.0	40.1	(58,632)	(0.22)
	LAURIE RIVER - TERMINAL DATE 2056/03/31								
1161	CIVIL	4,978,160.54	885,243	807,230	78,013	8.8	48.8	1,599	0.03
1162	TURBINES & GENERATORS	1,603,657.00	240,196	244,384	(4,188)	-1.7	45.9	(91)	(0.01)
1163	ACCESSORY STATION EQUIPMENT	3,923,642.00	739,907	848,477	(108,570)	-14.7	39.7	(2,735)	(0.07)
1164	OTHER	1,797,833.00	340,200	327,052	13,148	3.9	37.7	349	0.02
	JENPEG - TERMINAL DATE 2078/03/31								
1191	CIVIL	121,633,421.94	38,279,432	38,397,067	(117,635)	-0.3	62.7	(1,876)	(0.00)
1192	TURBINES & GENERATORS	77,029,952.77	29,732,014	31,197,200	(1,465,186)	-4.9	42.0	(34,885)	(0.05)
1193	ACCESSORY STATION EQUIPMENT	36,001,595.66	15,193,056	18,078,425	(2,885,369)	-19.0	31.0	(93,076)	(0.27)
1194	OTHER	6,134,242.10	1,845,173	3,235,826	(1,390,653)	-75.4	36.5	(38,100)	(0.62)
	LAKE WPG. REGULATION - TERMINAL DATE 2078/03/31								
1196	CIVIL	10,066,810.75	3,343,165	2,254,624	1,088,541	32.6	62.0	17,557	0.17
1197	WATER CHANNELS	86,720,256.00	30,315,982	24,342,983	5,972,999	19.7	61.4	97,280	0.11
1198	COMMUNITY DEVELOPMENT COSTS	289,780,946.86	32,709,955	54,225,007	(21,515,052)	-65.8	72.2	(297,992)	(0.10)
	CHURCHILL R DIVERSION - TERMINAL DATE 2078/03/31								
1216	CIVIL	132,121,292.42	43,564,483	34,413,119	9,151,364	21.0	62.2	147,128	0.11
1217	WATER CHANNELS	92,712,703.06	31,046,919	34,885,026	(3,838,107)	-12.4	62.0	(61,905)	(0.07)
1218	COMMUNITY DEVELOPMENT COSTS	236,496,767.11	27,368,744	50,622,475	(23,253,731)	-85.0	72.3	(321,828)	(0.14)
	LONG SPRUCE - TERMINAL DATE 2078/03/31								
1221	CIVIL	304,589,267.00	97,345,779	97,935,363	(589,584)	-0.6	62.6	(9,418)	(0.00)
1222	TURBINES & GENERATORS	143,834,015.76	63,261,845	64,540,013	(1,278,168)	-2.0	39.0	(32,774)	(0.02)
1223	ACCESSORY STATION EQUIPMENT	57,227,221.08	29,491,914	37,374,546	(7,882,632)	-26.7	26.9	(293,035)	(0.51)
1224	OTHER	30,436,817.72	13,407,645	12,353,208	1,054,437	7.9	30.0	35,148	0.12
	LIMESTONE - TERMINAL DATE 2092/03/31								
1231	CIVIL	808,766,114.00	125,398,054	128,497,974	(3,099,920)	-2.5	75.9	(40,842)	(0.01)
1232	TURBINES & GENERATORS	421,995,589.75	84,836,380	104,873,552	(20,037,172)	-23.6	53.1	(377,348)	(0.09)
1233	ACCESSORY STATION EQUIPMENT	184,067,384.45	51,508,877	63,347,994	(11,839,117)	-23.0	37.3	(317,403)	(0.17)
1234	OTHER	23,572,365.00	5,004,817	4,713,774	291,043	5.8	40.3	7,222	0.03
	TOTAL HYDRO GENERATION	**4,264,019,121.40**	**1,096,480,375**	**1,223,974,737**	**(127,494,362)**			**(2,498,571)**	
	THERMAL GENERATION								
	BRANDON 1-4								
1401	GENERATION - TERMINAL DATE 2000/03/31	24,847,855.00	-	-	-				
1401.1	SYNCHRONOUS CONDENSER - TERMINAL DATE 2010/03/31	4,846,889.00	4,339,854	4,755,986	(416,132)	-9.6	4.2	(99,079)	(2.04)
	BRANDON UNIT 5								
1411	GENERATION - TERMINAL DATE 2020/03/31	43,536,932.33	20,954,956	21,028,655	(73,699)	-0.4	14.0	(5,264)	(0.01)
	SELKIRK 1 & 2								
1421	GENERATION - TERMINAL DATE 2020/03/31	62,637,199.00	29,624,300	36,974,691	(7,350,391)	-24.8	14.1	(521,304)	(0.83)
1431	**BRANDON COMBUSTION TURBINE**	181,413,523.03	19,844,123	21,538,707	(1,694,584)	-9.6	22.5	-	0.00
	THERMAL LIFE ASSURANCE								
2001	**BRANDON 1-4 Terminal Date 2001/03/31**	11,926,002.00	-	-	-				
2011	**BRANDON 5 Terminal Date 2020/03/31**	76,530,324.00	30,332,527	24,061,509	6,271,018	20.7	14.1	444,753	0.58
2010	**SELKIRK Terminal Date 2020/03/31**	45,528,573.00	19,510,720	29,724,261	(10,213,561)	-52.3	14.1	(724,366)	(1.59)
	TOTAL THERMAL GENERATION	**451,267,297.36**	**124,406,480**	**138,083,829**	**(13,677,349)**			**(905,260)**	

MANITOBA HYDRO

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF ANNUAL PROVISION FOR TRUE-UP RELATED TO ESTIMATED ORIGINAL COST AT MARCH 31, 2005

Acct	Description	Surviving Original Cost 03/31/2005	Calculated Accrued Depreciation	Book Accumulated Depreciation	Accumulated Depreciation Variance Amount	Accumulated Depreciation Variance Percent	Probable Remaining Life	Annual Provision for True-Up	True-Up Rate (%)
	(1)	(2)	(3)	(4)	(5) = (3)-(4)	(6) = (5)/(3)	(7)	(8)=(5)/(7)	(9)=(8)/(2)
	DIESEL GENERATION								
2918	STRUCTURES & IMPROVEMENTS	8,196,278.00	3,033,810	1,741,568	1,292,242	42.6	11.0	117,477	1.43
4318	ACCESSORY STATION EQUIPMENT	13,488,708.98	5,559,771	1,981,561	3,578,210	64.4	7.1	503,973	3.74
4619	ENG & GNRTR - POST - 1987	17,160,326.21	7,751,911	5,558,929	2,192,982	28.3	4.6	476,735	2.78
	TOTAL DIESEL	38,845,313.19	16,345,492	9,282,058	7,063,434			1,098,185	
	TRANSMISSION LINES								
3030	METAL TOWERS	243,313,896.28	54,521,733	58,046,749	(3,525,016)	-6.5	70.0	(50,357)	(0.02)
3230	POLES & FIXTURES	62,933,264.23	30,494,138	25,919,982	4,574,156	15.0	39.2	116,688	0.14
3430	CONCRETE POLES	261,677.38	75,393	83,292	(7,899)	-10.5	55.7	(142)	(0.05)
3520	GROUNDLINE TREATMENT	341,944.00	188,638	1,607,880	(1,419,242)	-752.4	0.0	-	0.00
3830	CONDUCTORS & DEVICES	221,374,473.46	72,377,683	79,533,677	(7,155,994)	-9.9	43.8	(163,379)	(0.07)
3930	UNDERGROUND CONDUCTOR & DEVICES	1,163,682.47	568,042	554,536	13,506	2.4	24.0	563	0.05
4930	ROADS, TRAILS & BRIDGES	3,433,368.00	678,699	614,714	61,985	9.2	40.0	1,550	0.05
	TOTAL TRANSMISSION LINES	552,822,825.82	158,902,326	166,360,830	(7,458,504)			(95,077)	
	HVDC PURCHASE - GOVERNMENT OF CANADA. TRANSMISSION								
3031	METAL TOWERS	79,090,581.00	36,470,866	17,806,762	18,664,104	51.2	53.6	348,211	0.44
3631	CONDUCTORS & DEVICES	56,582,374.00	33,291,374	25,981,094	7,310,280	22.0	28.9	252,951	0.45
	TOTAL HVDC TRANSMISSION LINES	135,672,955.00	69,762,240	43,787,856	25,974,384			601,162	
	SUB - TRANSMISSION								
3045	METAL TOWERS	3,768,250.70	878,124	604,259	273,865	31.2	36.0	7,607	0.20
3695	POLES, CONDUCTOR & ATTACHMENTS	200,928,126.00	70,692,552	56,490,650	14,201,902	20.1	26.6	533,906	0.27
3545	GROUNDLINE TREATMENT	247,227.81	183,388	203,279	(19,891)	-10.8	3.6	-	0.00
3945	UNDERGROUND CONDUCTOR & DEVICES	13,200,208.03	1,531,901	169,759	1,362,142	88.9	29.7	45,883	0.35
4045	SERIALIZED EQUIPMENT	1,035,110.98	542,523	514,034	28,489	5.3	10.7	2,663	0.26
4945	ROADS, TRAILS & BRIDGES	298,654.43	81,575	79,889	1,686	2.1	42.2	40	0.01
	TOTAL SUB-TRANSMISSION	219,477,588.95	73,910,063	58,061,870	15,848,193			590,079	
	SUB - STATIONS								
2620	STRUCTURES & IMPROVEMENTS	65,663,128.00	32,628,122	38,279,181	(5,651,059)	-17.3	37.2	(151,910)	(0.16)
3320	POLES & FIXTURES	5,459,523.29	1,678,694	1,418,407	260,287	15.5	31.6	8,237	0.15
4020	SERIALIZED EQUIPMENT	400,150,001.18	121,836,071	134,875,586	(13,037,515)	-10.7	27.7	(470,668)	(0.12)
4120	SERIALIZED EQUIPMENT - (prev. in 4020) - HVDC SYSTEM	309,388,775.21	119,315,258	107,223,082	12,092,176	10.1	20.8	581,355	0.19
4420	ACCESSORY STATION EQUIPMENT	406,942,372.21	120,248,376	148,947,088	(28,698,712)	-23.9	33.7	(851,594)	(0.21)
4520	ACC. STN. EQP (prev. inc. in 4420) - HVDC SYSTEM	591,978,684.00	310,893,279	244,480,219	66,413,060	21.4	16.4	4,049,577	0.68
4920	ROADS, TRAILS & BRIDGES	3,596,606.00	381,703	414,147	(32,444)	-8.5	45.2	(718)	(0.02)
6020	SUPERVISORY	31,317,337.27	19,203,671	19,283,506	(79,835)	-0.4	9.2	(8,678)	(0.03)
6120	SUPR. EQP. (prev. inc. in 6020) -HVDC SYSTEM	15,561,999.56	11,298,153	11,935,834	(637,681)	-5.6	8.3	(76,829)	(0.49)
	TOTAL SUBSTATIONS	1,852,258,406.72	737,485,927	706,857,050	30,628,277			3,078,772	
	HVDC PURCHASE - GOVERNMENT OF CANADA SUB - STATION								
2621	STRUCTURES & IMPROVEMENTS - CONCRETE	13,868,540.00	8,320,708	8,218,497	102,211	1.2	24.4	4,189	0.03
4021	SERIALIZED EQUIPMENT	30,075,636.00	24,143,106	26,905,099	(2,761,993)	-11.4	10.3	(268,155)	(0.89)
4421	ACCESSORY STATION EQUIPMENT	21,098,156.00	21,829,313	17,529,745	4,299,568	19.7	3.4	1,264,579	5.99
	TOTAL HVDC SUB -STATION	65,042,332.00	54,293,127	52,653,341	1,639,786			1,000,613	
	DISTRIBUTION -TOWN AND RURAL								
3096	POLES, CONDUCTOR & ATTACHMENTS	742,357,750.77	272,306,367	273,884,805	(1,578,438)	-0.6	22.9	(68,927)	(0.01)
3540	GROUNDLINE TREATMENT	12,097,008.13	4,511,278	3,407,387	1,103,891	24.5	5.3	-	0.00
3940	UNDERGROUND CONDUCTORS & DEVICES	355,407,881.85	98,252,099	86,242,220	12,009,879	12.2	31.4	382,480	0.11
4040	SERIALIZED EQUIPMENT	245,792,607.91	90,292,577	114,998,961	(24,706,384)	-27.4	15.2	(1,625,420)	(0.66)
5040	STREET LIGHTING	119,079,645.19	36,522,323	61,546,108	(25,023,785)	-68.5	29.8	(839,724)	(0.71)
5340	SERVICES	94,381,823.46	34,540,555	33,921,232	619,323	1.8	20.6	30,064	0.03
	TOTAL DISTRIBUTION	1,569,116,717.31	536,425,199	574,000,713	(37,575,514)			(2,121,527)	
	DISTRIBUTION - METERS								
5647	METERS	38,477,059.11	11,853,595	11,702,367	151,228	1.3	20.0	7,561	0.02
5748	METER TRANSFORMERS	5,804,084.19	1,582,096	2,623,662	(1,041,566)	-65.8	59.1	(17,624)	(0.30)
	TOTAL DISTRIBUTION - METERS	44,281,143.30	13,435,691	14,326,029	(890,338)			(10,063)	
	COMMUNICATION								
2670	STRUCTURES & IMPROVEMENTS	19,974,852.40	2,694,004	2,560,829	133,175	4.9	49.7	2,680	0.01
6070	COMMUNICATION & CONTROL EQUIPMENT	205,010,851.54	90,240,239	93,447,894	(3,207,655)	-3.6	10.1	(317,500)	(0.15)
6071	FIBRE OPTIC CABLE	83,552,792.48	7,302,178	8,358,358	(1,056,180)	-14.5	36.8	(28,701)	(0.03)
6072	FIBRE OPTIC ELECTRONICS	21,859,733.41	2,981,356	2,874,437	106,919	3.6	12.9	8,288	0.04
	TOTAL COMMUNICATION	330,598,239.83	103,217,777	107,241,518	(4,023,741)			(335,323)	
	BUILDINGS								
2350	BUILDINGS - WOOD	42,301,401.73	6,548,738	7,929,085	(1,380,347)	-21.1	51.3	(26,907)	(0.06)
2650	BUILDINGS - CONCRETE	61,916,847.06	16,816,145	13,078,645	3,737,500	22.2	40.5	92,284	0.15
2950	BUILDINGS - METAL	40,421,020.38	7,821,677	8,298,892	(477,215)	-6.1	44.9	(10,628)	(0.03)
	TOTAL BUILDINGS	144,639,269.17	31,186,560	29,306,622	1,879,938			54,749	
	GENERAL EQUIPMENT								
2299	EASEMENTS	38,517,669.00	4,221,139	7,360,547	(3,139,408)	-74.4	66.9	-	0.00
6380	TOOLS, SHOP / GARAGE	57,019,241.16	18,750,615	15,450,878	3,299,737	17.6	9.6	-	0.00
6480	COMPUTER APPLICATION	125,918,602.98	49,619,302	56,349,296	(6,729,994)	-13.6	6.7	-	0.00
6580	COMPUTER EQUIPMENT - POST 1999	85,365,522.75	52,868,050	52,641,796	226,254	0.4	2.4	-	0.00
6680	OFFICE FURNITURE & EQUIPMENT	14,233,927.91	6,337,709	6,396,235	(58,526)	-0.9	10.1	-	0.00
7777	HOT WATER TANKS	3,448,160.23	697,601	618,795	78,806	8.8	11.0	-	0.00
8888	BIUL INSERTER	179,923.00	139,459	133,129	6,330	4.5	1.6	-	0.00
9999	FIRE RETARDANT CLOTHING	2,622,291.93	1,646,573	1,608,653	37,920	2.3	1.9	-	0.00
	TOTAL GENERAL EQUIPMENT	327,305,338.96	134,480,448	140,759,329	(6,278,881)			-	
	VEHICLES								
8060	PASSENGER VEHICLES	1,150,412.70	289,577	473,262	(183,685)	-63.4	6.0	(30,614)	(2.66)
8161	LIGHT TRUCKS	41,774,796.30	15,054,283	15,755,814	(701,531)	-4.7	5.5	(127,551)	(0.31)
8262	HEAVY TRUCKS	44,695,093.83	14,879,974	14,036,737	843,237	5.7	8.8	95,822	0.21
8368	CONSTRUCTION EQUIPMENT	10,338,661.00	3,366,014	4,208,770	(842,756)	-25.0	10.6	(79,505)	(0.77)
8467	LARGE SOFT -TRACK EQUIPMENT	6,375,762.55	1,368,837	2,144,669	(775,832)	-56.7	17.2	(45,107)	(0.71)
8568	TRAILERS	11,182,170.89	1,484,594	3,243,473	(1,758,879)	-118.5	27.0	(65,144)	(0.58)
8865	MISCELLANEOUS	5,243,923.17	1,765,604	1,259,502	506,102	28.7	5.4	93,723	1.79
	TOTAL VEHICLES	120,760,820.44	38,208,883	41,122,227	(2,913,344)			(159,376)	
	TOTAL DEPRECIABLE PLANT REVIEWED	10,115,907,069.49	3,188,539,986	3,305,818,009	(117,278,021)			299,363	