Board Counsel Book of Documents

Volume 5

Depreciation Concurrent Evidence Panel

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INTERNATIONAL ACCOUNTING STANDARD 16
property, plant and equipment

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Objective

1 The objective of this Standard is to prescribe the accounting treatment for property, plant and equipment so that users of the financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment. The principal issues in accounting for property, plant and equipment are the recognition of the assets, the determination of their carrying amounts and the depreciation charges and impairment losses to be recognised in relation to them.

Scope

2 This Standard shall be applied in accounting for property, plant and equipment except when another Standard requires or permits a different accounting treatment.

3 This Standard does not apply to:

(a) property, plant and equipment classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

(b) biological assets related to agricultural activity other than bearer plants (see IAS 41 *Agriculture*). This Standard applies to bearer plants but it does not apply to the produce on bearer plants.

(c) the recognition and measurement of exploration and evaluation assets (see IFRS 6 *Exploration for and Evaluation of Mineral Resources*).

(d) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources.

However, this Standard applies to property, plant and equipment used to develop or maintain the assets described in (b)–(d).

4 [Deleted]

5 An entity using the cost model for investment property in accordance with IAS 40 *Investment Property* shall use the cost model in this Standard for owned investment property.

Definitions

6 The following terms are used in this Standard with the meanings specified:

A *bearer plant* is a living plant that:

(a) is used in the production or supply of agricultural produce;

(b) is expected to bear produce for more than one period; and

(c) has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.

(Paragraphs 5A–5B of IAS 41 elaborate on this definition of a bearer plant.)

***Carrying amount* is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses.**

***Cost* is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other IFRSs, eg IFRS 2 *Share-based Payment*.**

***Depreciable amount* is the cost of an asset, or other amount substituted for cost, less its residual value.**

***Depreciation* is the systematic allocation of the depreciable amount of an asset over its useful life.**

***Entity-specific value* is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a liability.**

***Fair value* is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (See IFRS 13 *Fair Value Measurement*.)**

An *impairment loss* is the amount by which the carrying amount of an asset exceeds its recoverable amount.

***Property, plant and equipment* are tangible items that:**

(a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

(b) are expected to be used during more than one period.

***Recoverable amount* is the higher of an asset's fair value less costs of disposal and its value in use.**

The *residual value* of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

***Useful life* is:**

(a) the period over which an asset is expected to be available for use by an entity; or

(b) the number of production or similar units expected to be obtained from the asset by an entity.

Recognition

7 The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:

(a) it is probable that future economic benefits associated with the item will flow to the entity; and

(b) the cost of the item can be measured reliably.

8 Items such as spare parts, stand-by equipment and servicing equipment are recognised in accordance with this IFRS when they meet the definition of property, plant and equipment. Otherwise, such items are classified as inventory.

9 This Standard does not prescribe the unit of measure for recognition, ie what constitutes an item of property, plant and equipment. Thus, judgement is required in applying the recognition criteria to an entity's specific circumstances. It may be appropriate to aggregate individually insignificant items, such as moulds, tools and dies, and to apply the criteria to the aggregate value.

10 An entity evaluates under this recognition principle all its property, plant and equipment costs at the time they are incurred. These costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. The cost of an item of property, plant and equipment may include costs incurred relating to leases of assets that are used to construct, add to, replace part of or service an item of property, plant and equipment, such as depreciation of right-of-use assets.

Initial costs

11 Items of property, plant and equipment may be acquired for safety or environmental reasons. The acquisition of such property, plant and equipment, although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for an entity to obtain the future economic benefits from its other assets. Such items of property, plant and equipment qualify for recognition as assets because they enable an entity to derive future economic benefits from related assets in excess of what could be derived had those items not been acquired. For example, a chemical manufacturer may install new chemical handling processes to comply with environmental requirements for the production and storage of dangerous chemicals; related plant enhancements are recognised as an asset because without them the entity is unable to manufacture and sell chemicals. However, the resulting carrying amount of such an asset and related assets is reviewed for impairment in accordance with IAS 36 *Impairment of Assets*.

Subsequent costs

12 Under the recognition principle in paragraph 7, an entity does not recognise in the carrying amount of an item of property, plant and equipment the costs of the day-to-day servicing of the item. Rather, these costs are recognised in profit or loss as incurred. Costs of day-to-day servicing are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is often described as for the 'repairs and maintenance' of the item of property, plant and equipment.

13 Parts of some items of property, plant and equipment may require replacement at regular intervals. For example, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe. Items of property, plant and equipment may also be acquired to make a less frequently recurring replacement, such as replacing the interior walls of a building, or to make a nonrecurring replacement. Under the recognition principle in paragraph 7, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions of this Standard (see paragraphs 67–72).

14 A condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognised in the carrying amount of the item of property, plant and equipment as a replacement if the recognition criteria are satisfied. Any remaining carrying amount of the cost of the previous inspection (as distinct from physical parts) is derecognised. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the item was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired or constructed.

Measurement at recognition

15 An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.

Elements of cost

16 The cost of an item of property, plant and equipment comprises:

(a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.

(b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

(c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

17 Examples of directly attributable costs are:

(a) costs of employee benefits (as defined in IAS 19 *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant and equipment;

(b) costs of site preparation;

(c) initial delivery and handling costs;

(d) installation and assembly costs;

(e) costs of testing whether the asset is functioning properly (ie assessing whether the technical and physical performance of the asset is such that it is capable of being used in the production or supply of goods or services, for rental to others, or for administrative purposes); and

(f) professional fees.

18 An entity applies IAS 2 *Inventories* to the costs of obligations for dismantling, removing and restoring the site on which an item is located that are incurred during a particular period as a consequence of having used the item to produce

inventories during that period. The obligations for costs accounted for in accordance with IAS 2 or IAS 16 are recognised and measured in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.

19 Examples of costs that are not costs of an item of property, plant and equipment are:

(a) costs of opening a new facility;

(b) costs of introducing a new product or service (including costs of advertising and promotional activities);

(c) costs of conducting business in a new location or with a new class of customer (including costs of staff training); and

(d) administration and other general overhead costs.

20 Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Therefore, costs incurred in using or redeploying an item are not included in the carrying amount of that item. For example, the following costs are not included in the carrying amount of an item of property, plant and equipment:

(a) costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;

(b) initial operating losses, such as those incurred while demand for the item's output builds up; and

(c) costs of relocating or reorganising part or all of an entity's operations.

20A Items may be produced while bringing an item of property, plant and equipment to the location and condition necessary for it to be capable of operating in the manner intended by management (such as samples produced when testing whether the asset is functioning properly). An entity recognises the proceeds from selling any such items, and the cost of those items, in profit or loss in accordance with applicable Standards. The entity measures the cost of those items applying the measurement requirements of IAS 2.

21 Some operations occur in connection with the construction or development of an item of property, plant and equipment, but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management. These incidental operations may occur before or during the construction or development activities. For example, income may be earned through using a building site as a car park until construction starts. Because incidental operations are not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, the income and related expenses of incidental operations are recognised in profit or loss and included in their respective classifications of income and expense.

22 The cost of a self-constructed asset is determined using the same principles as for an acquired asset. If an entity makes similar assets for sale in the normal course of business, the cost of the asset is usually the same as the cost of constructing an asset for sale (see IAS 2). Therefore, any internal profits are eliminated in arriving at such costs. Similarly, the cost of abnormal amounts of wasted material, labour, or other resources incurred in self-constructing an asset is not included in the cost of the asset. IAS 23 *Borrowing Costs* establishes criteria for the recognition of interest as a component of the carrying amount of a self-constructed item of property, plant and equipment.

22A Bearer plants are accounted for in the same way as self-constructed items of property, plant and equipment before they are in the location and condition necessary to be capable of operating in the manner intended by management. Consequently, references to 'construction' in this Standard should be read as covering activities that are necessary to cultivate the bearer plants before they are in the location and condition necessary to be capable of operating in the manner intended by management.

Measurement of cost

23 The cost of an item of property, plant and equipment is the cash price equivalent at the recognition date. If payment is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest over the period of credit unless such interest is capitalised in accordance with IAS 23.

24 One or more items of property, plant and equipment may be acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets. The following discussion refers simply to an exchange of one non-monetary asset for another, but it also applies to all exchanges described in the preceding sentence. The cost of such an item of property, plant and equipment is measured at fair value unless (a) the exchange transaction lacks commercial substance or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. The acquired item is measured in this way even if an entity cannot immediately derecognise the asset given up. If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

25 An entity determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

(a) the configuration (risk, timing and amount) of the cash flows of the asset received differs from the configuration of the cash flows of the asset transferred; or

(b) the entity-specific value of the portion of the entity's operations affected by the transaction changes as a result of the exchange; and

(c) the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

For the purpose of determining whether an exchange transaction has commercial substance, the entity-specific value of the portion of the entity's operations affected by the transaction shall reflect post-tax cash flows. The result of these analyses may be clear without an entity having to perform detailed calculations.

26 The fair value of an asset is reliably measurable if (a) the variability in the range of reasonable fair value measurements is not significant for that asset or (b) the probabilities of the various estimates within the range can be reasonably assessed and used when measuring fair value. If an entity is able to measure reliably the fair value of either the asset received or the asset given up, then the fair value of the asset given up is used to measure the cost of the asset received unless the fair value of the asset received is more clearly evident.

27 [Deleted]

28 The carrying amount of an item of property, plant and equipment may be reduced by government grants in accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*.

Measurement after recognition

29 An entity shall choose either the cost model in paragraph 30 or the revaluation model in paragraph 31 as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.

29A Some entities operate, either internally or externally, an investment fund that provides investors with benefits determined by units in the fund. Similarly, some entities issue groups of insurance contracts with direct participation features and hold the underlying items. Some such funds or underlying items include owner-occupied property. The entity applies IAS 16 to owner-occupied properties that are included in such a fund or are underlying items. Despite paragraph 29, the entity may elect to measure such properties using the fair value model in accordance with IAS 40. For the purposes of this election, insurance contracts include investment contracts with discretionary participation features. (See IFRS 17 *Insurance Contracts* for terms used in this paragraph that are defined in that Standard).

29B An entity shall treat owner-occupied property measured using the investment property fair value model applying paragraph 29A as a separate class of property, plant and equipment.

Cost model

30 After recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Revaluation model

31 After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

32–33 [Deleted]

34 The frequency of revaluations depends upon the changes in fair values of the items of property, plant and equipment being revalued. When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is required. Some items of property, plant and equipment experience significant and volatile changes in fair value, thus necessitating annual revaluation. Such frequent revaluations are unnecessary for items of property, plant and equipment with only insignificant changes in fair value. Instead, it may be necessary to revalue the item only every three or five years.

35 When an item of property, plant and equipment is revalued, the carrying amount of that asset is adjusted to the revalued amount. At the date of the revaluation, the asset is treated in one of the following ways:

(a) the gross carrying amount is adjusted in a manner that is consistent with the revaluation of the carrying amount of the asset. For example, the gross carrying amount may be restated by reference to observable market data or it may be restated proportionately to the change in the carrying amount. The accumulated depreciation at the date of the revaluation is adjusted to equal the difference between the gross carrying amount and the carrying amount of the asset after taking into account accumulated impairment losses; or

(b) the accumulated depreciation is eliminated against the gross carrying amount of the asset.

The amount of the adjustment of accumulated depreciation forms part of the increase or decrease in carrying amount that is accounted for in accordance with paragraphs 39 and 40.

36 If an item of property, plant and equipment is revalued, the entire class of property, plant and equipment to which that asset belongs shall be revalued.

37 A class of property, plant and equipment is a grouping of assets of a similar nature and use in an entity's operations. The following are examples of separate classes:

(a) land;

(b) land and buildings;

(c) machinery;

(d) ships;
(e) aircraft;
(f) motor vehicles;
(g) furniture and fixtures;
(h) office equipment; and
(i) bearer plants.

38 The items within a class of property, plant and equipment are revalued simultaneously to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates. However, a class of assets may be revalued on a rolling basis provided revaluation of the class of assets is completed within a short period and provided the revaluations are kept up to date.

39 If an asset's carrying amount is increased as a result of a revaluation, the increase shall be recognised in other comprehensive income and accumulated in equity under the heading of revaluation surplus. However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.

40 If an asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognised in profit or loss. However, the decrease shall be recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset. The decrease recognised in other comprehensive income reduces the amount accumulated in equity under the heading of revaluation surplus.

41 The revaluation surplus included in equity in respect of an item of property, plant and equipment may be transferred directly to retained earnings when the asset is derecognised. This may involve transferring the whole of the surplus when the asset is retired or disposed of. However, some of the surplus may be transferred as the asset is used by an entity. In such a case, the amount of the surplus transferred would be the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost. Transfers from revaluation surplus to retained earnings are not made through profit or loss.

42 The effects of taxes on income, if any, resulting from the revaluation of property, plant and equipment are recognised and disclosed in accordance with IAS 12 *Income Taxes*.

Depreciation

43 Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.

44 An entity allocates the amount initially recognised in respect of an item of property, plant and equipment to its significant parts and depreciates separately each such part. For example, it may be appropriate to depreciate separately the airframe and engines of an aircraft. Similarly, if an entity acquires property, plant and equipment subject to an operating lease in which it is the lessor, it may be appropriate to depreciate separately amounts reflected in the cost of that item that are attributable to favourable or unfavourable lease terms relative to market terms.

45 A significant part of an item of property, plant and equipment may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be grouped in determining the depreciation charge.

46 To the extent that an entity depreciates separately some parts of an item of property, plant and equipment, it also depreciates separately the remainder of the item. The remainder consists of the parts of the item that are individually not significant. If an entity has varying expectations for these parts, approximation techniques may be necessary to depreciate the remainder in a manner that faithfully represents the consumption pattern and/or useful life of its parts.

47 An entity may choose to depreciate separately the parts of an item that do not have a cost that is significant in relation to the total cost of the item.

48 The depreciation charge for each period shall be recognised in profit or loss unless it is included in the carrying amount of another asset.

49 The depreciation charge for a period is usually recognised in profit or loss. However, sometimes, the future economic benefits embodied in an asset are absorbed in producing other assets. In this case, the depreciation charge constitutes part of the cost of the other asset and is included in its carrying amount. For example, the depreciation of manufacturing plant and equipment is included in the costs of conversion of inventories (see IAS 2). Similarly, depreciation of property, plant and equipment used for development activities may be included in the cost of an intangible asset recognised in accordance with IAS 38 *Intangible Assets*.

Depreciable amount and depreciation period

50 The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.

51 The residual value and the useful life of an asset shall be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*.

52 Depreciation is recognised even if the fair value of the asset exceeds its carrying amount, as long as the asset's residual value does not exceed its carrying amount. Repair and maintenance of an asset do not negate the need to depreciate it.

53 The depreciable amount of an asset is determined after deducting its residual value. In practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount.

54 The residual value of an asset may increase to an amount equal to or greater than the asset's carrying amount. If it does, the asset's depreciation charge is zero unless and until its residual value subsequently decreases to an amount below the asset's carrying amount.

55 Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5 and the date that the asset is derecognised. Therefore, depreciation does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated. However, under usage methods of depreciation the depreciation charge can be zero while there is no production.

56 The future economic benefits embodied in an asset are consumed by an entity principally through its use. However, other factors, such as technical or commercial obsolescence and wear and tear while an asset remains idle, often result in the diminution of the economic benefits that might have been obtained from the asset. Consequently, all the following factors are considered in determining the useful life of an asset:

(a) expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.

(b) expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle.

(c) technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset. Expected future reductions in the selling price of an item that was produced using an asset could indicate the expectation of technical or commercial obsolescence of the asset, which, in turn, might reflect a reduction of the future economic benefits embodied in the asset.

(d) legal or similar limits on the use of the asset, such as the expiry dates of related leases.

57 The useful life of an asset is defined in terms of the asset's expected utility to the entity. The asset management policy of the entity may involve the disposal of assets after a specified time or after consumption of a specified proportion of the future economic benefits embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets.

58 Land and buildings are separable assets and are accounted for separately, even when they are acquired together. With some exceptions, such as quarries and sites used for landfill, land has an unlimited useful life and therefore is not depreciated. Buildings have a limited useful life and therefore are depreciable assets. An increase in the value of the land on which a building stands does not affect the determination of the depreciable amount of the building.

59 If the cost of land includes the costs of site dismantlement, removal and restoration, that portion of the land asset is depreciated over the period of benefits obtained by incurring those costs. In some cases, the land itself may have a limited useful life, in which case it is depreciated in a manner that reflects the benefits to be derived from it.

Depreciation method

60 The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity.

61 The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with IAS 8.

62 A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method and the units of production method. Straight-line depreciation results in a constant charge over the useful life if the asset's residual value does not change. The diminishing balance method results in a decreasing charge over the useful life. The units of production method results in a charge based on the expected use or output. The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits.

62A A depreciation method that is based on revenue that is generated by an activity that includes the use of an asset is not appropriate. The revenue generated by an activity that includes the use of an asset generally reflects factors other than the consumption of the economic benefits of the asset. For example, revenue is affected by other inputs and

processes, selling activities and changes in sales volumes and prices. The price component of revenue may be affected by inflation, which has no bearing upon the way in which an asset is consumed.

Impairment

63 To determine whether an item of property, plant and equipment is impaired, an entity applies IAS 36 *Impairment of Assets*. That Standard explains how an entity reviews the carrying amount of its assets, how it determines the recoverable amount of an asset, and when it recognises, or reverses the recognition of, an impairment loss.

64 [Deleted]

Compensation for impairment

65 Compensation from third parties for items of property, plant and equipment that were impaired, lost or given up shall be included in profit or loss when the compensation becomes receivable.

66 Impairments or losses of items of property, plant and equipment, related claims for or payments of compensation from third parties and any subsequent purchase or construction of replacement assets are separate economic events and are accounted for separately as follows:

(a) impairments of items of property, plant and equipment are recognised in accordance with IAS 36;

(b) derecognition of items of property, plant and equipment retired or disposed of is determined in accordance with this Standard;

(c) compensation from third parties for items of property, plant and equipment that were impaired, lost or given up is included in determining profit or loss when it becomes receivable; and

(d) the cost of items of property, plant and equipment restored, purchased or constructed as replacements is determined in accordance with this Standard.

Derecognition

67 The carrying amount of an item of property, plant and equipment shall be derecognised:

(a) on disposal; or

(b) when no future economic benefits are expected from its use or disposal.

68 The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in profit or loss when the item is derecognised (unless IFRS 16 *Leases* requires otherwise on a sale and leaseback). Gains shall not be classified as revenue.

68A However, an entity that, in the course of its ordinary activities, routinely sells items of property, plant and equipment that it has held for rental to others shall transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale. The proceeds from the sale of such assets shall be recognised as revenue in accordance with IFRS 15 *Revenue from Contracts with Customers*. IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.

69 The disposal of an item of property, plant and equipment may occur in a variety of ways (eg by sale, by entering into a finance lease or by donation). The date of disposal of an item of property, plant and equipment is the date the recipient obtains control of that item in accordance with the requirements for determining when a performance obligation is satisfied in IFRS 15. IFRS 16 applies to disposal by a sale and leaseback.

70 If, under the recognition principle in paragraph 7, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of a replacement for part of the item, then it derecognises the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired or constructed.

71 The gain or loss arising from the derecognition of an item of property, plant and equipment shall be determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

72 The amount of consideration to be included in the gain or loss arising from the derecognition of an item of property, plant and equipment is determined in accordance with the requirements for determining the transaction price in paragraphs 47–72 of IFRS 15. Subsequent changes to the estimated amount of the consideration included in the gain or loss shall be accounted for in accordance with the requirements for changes in the transaction price in IFRS 15.

Disclosure

73 The financial statements shall disclose, for each class of property, plant and equipment:

(a) the measurement bases used for determining the gross carrying amount;

(b) the depreciation methods used;

(c) the useful lives or the depreciation rates used;

(d) the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period; and

(e) a reconciliation of the carrying amount at the beginning and end of the period showing:

(i) additions;

(ii) assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IFRS 5 and other disposals;

(iii) acquisitions through business combinations;

(iv) increases or decreases resulting from revaluations under paragraphs 31, 39 and 40 and from impairment losses recognised or reversed in other comprehensive income in accordance with IAS 36;

(v) impairment losses recognised in profit or loss in accordance with IAS 36;

(vi) impairment losses reversed in profit or loss in accordance with IAS 36;

(vii) depreciation;

(viii) the net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and

(ix) other changes.

74 The financial statements shall also disclose:

(a) the existence and amounts of restrictions on title, and property, plant and equipment pledged as security for liabilities;

(b) the amount of expenditures recognised in the carrying amount of an item of property, plant and equipment in the course of its construction; and

(c) the amount of contractual commitments for the acquisition of property, plant and equipment.

74A If not presented separately in the statement of comprehensive income, the financial statements shall also disclose:

(a) the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost or given up that is included in profit or loss; and

(b) the amounts of proceeds and cost included in profit or loss in accordance with paragraph 20A that relate to items produced that are not an output of the entity's ordinary activities, and which line item(s) in the statement of comprehensive income include(s) such proceeds and cost.

75 Selection of the depreciation method and estimation of the useful life of assets are matters of judgement. Therefore, disclosure of the methods adopted and the estimated useful lives or depreciation rates provides users of financial statements with information that allows them to review the policies selected by management and enables comparisons to be made with other entities. For similar reasons, it is necessary to disclose:

(a) depreciation, whether recognised in profit or loss or as a part of the cost of other assets, during a period; and

(b) accumulated depreciation at the end of the period.

76 In accordance with IAS 8 an entity discloses the nature and effect of a change in an accounting estimate that has an effect in the current period or is expected to have an effect in subsequent periods. For property, plant and equipment, such disclosure may arise from changes in estimates with respect to:

(a) residual values;

(b) the estimated costs of dismantling, removing or restoring items of property, plant and equipment;

(c) useful lives; and

(d) depreciation methods.

77 If items of property, plant and equipment are stated at revalued amounts, the following shall be disclosed in addition to the disclosures required by IFRS 13:

(a) the effective date of the revaluation;

(b) whether an independent valuer was involved;

(c) [deleted]

(d) [deleted]

(e) for each revalued class of property, plant and equipment, the carrying amount that would have been recognised had the assets been carried under the cost model; and

(f) the revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders.

78 In accordance with IAS 36 an entity discloses information on impaired property, plant and equipment in addition to the information required by paragraph 73(e)(iv)–(vi).

79 Users of financial statements may also find the following information relevant to their needs:

(a) the carrying amount of temporarily idle property, plant and equipment;

(b) the gross carrying amount of any fully depreciated property, plant and equipment that is still in use;

(c) the carrying amount of property, plant and equipment retired from active use and not classified as held for sale in accordance with IFRS 5; and

(d) when the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount.

Therefore, entities are encouraged to disclose these amounts.

Transitional provisions

80 The requirements of paragraphs 24–26 regarding the initial measurement of an item of property, plant and equipment acquired in an exchange of assets transaction shall be applied prospectively only to future transactions.

80A Paragraph 35 was amended by *Annual Improvements to IFRSs 2010–2012 Cycle*. An entity shall apply that amendment to all revaluations recognised in annual periods beginning on or after the date of initial application of that amendment and in the immediately preceding annual period. An entity may also present adjusted comparative information for any earlier periods presented, but it is not required to do so. If an entity presents unadjusted comparative information for any earlier periods, it shall clearly identify the information that has not been adjusted, state that it has been presented on a different basis and explain that basis.

80B In the reporting period when *Agriculture: Bearer Plants* (Amendments to IAS 16 and IAS 41) is first applied an entity need not disclose the quantitative information required by paragraph 28(f) of IAS 8 for the current period. However, an entity shall present the quantitative information required by paragraph 28(f) of IAS 8 for each prior period presented.

80C An entity may elect to measure an item of bearer plants at its fair value at the beginning of the earliest period presented in the financial statements for the reporting period in which the entity first applies *Agriculture: Bearer Plants* (Amendments to IAS 16 and IAS 41) and use that fair value as its deemed cost at that date. Any difference between the previous carrying amount and fair value shall be recognised in opening retained earnings at the beginning of the earliest period presented.

80D *Property, Plant and Equipment—Proceeds before Intended Use*, issued in May 2020, amended paragraphs 17 and 74 and added paragraphs 20A and 74A. An entity shall apply those amendments retrospectively, but only to items of property, plant and equipment that are brought to the location and condition necessary for them to be capable of operating in the manner intended by management on or after the beginning of the earliest period presented in the financial statements in which the entity first applies the amendments. The entity shall recognise the cumulative effect of initially applying the amendments as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate) at the beginning of that earliest period presented.

Effective date

81 An entity shall apply this Standard for annual periods beginning on or after 1 January 2005. Earlier application is encouraged. If an entity applies this Standard for a period beginning before 1 January 2005, it shall disclose that fact.

81A An entity shall apply the amendments in paragraph 3 for annual periods beginning on or after 1 January 2006. If an entity applies IFRS 6 for an earlier period, those amendments shall be applied for that earlier period.

81B IAS 1 *Presentation of Financial Statements* (as revised in 2007) amended the terminology used throughout IFRSs. In addition it amended paragraphs 39, 40 and 73(e)(iv). An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. If an entity applies IAS 1 (revised 2007) for an earlier period, the amendments shall be applied for that earlier period.

81C IFRS 3 *Business Combinations* (as revised in 2008) amended paragraph 44. An entity shall apply that amendment for annual periods beginning on or after 1 July 2009. If an entity applies IFRS 3 (revised 2008) for an earlier period, the amendment shall also be applied for that earlier period.

81D Paragraphs 6 and 69 were amended and paragraph 68A was added by *Improvements to IFRSs* issued in May 2008. An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. Earlier application is permitted. If an entity applies the amendments for an earlier period it shall disclose that fact and at the same time apply the related amendments to IAS 7 *Statement of Cash Flows*.

81E Paragraph 5 was amended by *Improvements to IFRSs* issued in May 2008. An entity shall apply that amendment prospectively for annual periods beginning on or after 1 January 2009. Earlier application is permitted if an entity also applies the amendments to paragraphs 8, 9, 22, 48, 53, 53A, 53B, 54, 57 and 85B of IAS 40 at the same time. If an entity applies the amendment for an earlier period it shall disclose that fact.

81F IFRS 13, issued in May 2011, amended the definition of fair value and the definition of recoverable amount in paragraph 6, amended paragraphs 26, 35 and 77 and deleted paragraphs 32 and 33. An entity shall apply those amendments when it applies IFRS 13.

81G *Annual Improvements 2009–2011 Cycle*, issued in May 2012, amended paragraph 8. An entity shall apply that amendment retrospectively in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*

for annual periods beginning on or after 1 January 2013. Earlier application is permitted. If an entity applies that amendment for an earlier period it shall disclose that fact.

81H *Annual Improvements to IFRSs 2010–2012 Cycle*, issued in December 2013, amended paragraph 35 and added paragraph 80A. An entity shall apply that amendment for annual periods beginning on or after 1 July 2014. Earlier application is permitted. If an entity applies that amendment for an earlier period it shall disclose that fact.

81I *Clarification of Acceptable Methods of Depreciation and Amortisation* (Amendments to IAS 16 and IAS 38), issued in May 2014, amended paragraph 56 and added paragraph 62A. An entity shall apply those amendments prospectively for annual periods beginning on or after 1 January 2016. Earlier application is permitted. If an entity applies those amendments for an earlier period it shall disclose that fact.

81J IFRS 15 *Revenue from Contracts with Customers*, issued in May 2014, amended paragraphs 68A, 69 and 72. An entity shall apply those amendments when it applies IFRS 15.

81K *Agriculture: Bearer Plants* (Amendments to IAS 16 and IAS 41), issued in June 2014, amended paragraphs 3, 6 and 37 and added paragraphs 22A and 80B–80C. An entity shall apply those amendments for annual periods beginning on or after 1 January 2016. Earlier application is permitted. If an entity applies those amendments for an earlier period, it shall disclose that fact. An entity shall apply those amendments retrospectively, in accordance with IAS 8, except as specified in paragraph 80C.

81L IFRS 16, issued in January 2016, deleted paragraphs 4 and 27 and amended paragraphs 5, 10, 44 and 68–69. An entity shall apply those amendments when it applies IFRS 16.

81M IFRS 17, issued in May 2017, added paragraphs 29A and 29B. An entity shall apply those amendments when it applies IFRS 17.

81N *Property, Plant and Equipment—Proceeds before Intended Use*, issued in May 2020, amended paragraphs 17 and 74, and added paragraphs 20A, 74A and 80D. An entity shall apply those amendments for annual reporting periods beginning on or after 1 January 2022. Earlier application is permitted. If an entity applies those amendments for an earlier period, it shall disclose that fact.

Withdrawal of other pronouncements

82 This Standard supersedes IAS 16 *Property, Plant and Equipment* (revised in 1998).

83 This Standard supersedes the following Interpretations:

(a) SIC-6 *Costs of Modifying Existing Software*;

(b) SIC-14 *Property, Plant and Equipment — Compensation for the Impairment or Loss of Items*; and

(c) SIC-23 *Property, Plant and Equipment — Major Inspection or Overhaul Costs*.

REFERENCE:

MFR 95 – Attachment 1

PREAMBLE TO IR (IF ANY):

The Concentric Depreciation study states that "Many regulated utilities in North America have received approval to adopt amortization accounting for these types of accounts".

QUESTION:

a) For Canadian electric utilities please identify those who:
   i. Use the ELG procedure for regulatory accounting;
   ii. Use the ASL procedure for regulatory accounting;
   iii. Use CGAAP for regulatory accounting;
b) Please also indicate the depreciation procedure they use for financial reporting purposes
c) Did the electric utilities use a deferral account to record the CGAAP vs. IFRS differential in depreciation expense? If so, what was the amortization period of the deferral account?

RESPONSE:

Manitoba Hydro conducted a survey through Electricity Canada in January 2023 in order to respond to this information request Eleven Canadian utilities responded to the survey. Ten of the eleven utilities responding report under IFRS accounting standards, and one reports under US GAAP. Manitoba Hydro's accounting treatment has been included with the survey responses below.

a) Based on the Electricity Canada survey results and including Manitoba Hydro, the following procedures are used for regulatory reporting purposes:

- One utility uses ELG procedure
- One utility uses a combination of ELG and individual unit procedures

- Five utilities use ALG procedure
- Three utilities use item/individual unit procedure
- One uses a combination of item/individual unit and vintage group procedures
- One (Manitoba Hydro) uses previous CGAAP for regulatory reporting

b) Based on the Electricity Canada survey results, and including Manitoba Hydro, the following procedures are used for financial reporting purposes:

- Two utilities use ELG procedure
- One utility uses a combination of ELG and individual unit procedures
- Four utilities use ALG procedure
- One utility used a combination of ALG and individual unit procedures
- Three utilities use item/individual unit procedure
- One uses a combination of item/individual unit and vintage group procedures
- No utilities use previous CGAAP for financial reporting

c) Based on the Electricity Canada survey results, and including Manitoba Hydro, five of the twelve utilities record regulatory deferral accounts related to depreciation expense.

- One utility (Manitoba Hydro) has a regulatory deferral to record the CGAAP vs. IFRS differential in depreciation expense. No amortization period has been approved for this deferral account.
- Two utilities have regulatory deferral accounts to capture the gains and losses incurred on the retirement of assets.
    - One utility (Manitoba Hydro) does not currently have any mechanism for recovery of the deferred gains and losses.
    - One utility recovers the deferred gains and losses through future depreciation rates.
- Two utilities have regulatory deferral accounts which capture changes in depreciation expense resulting from the implementation of new depreciation studies between rate proceedings.

  - One of these companies indicated that the cumulative balance in this deferral account is normally amortized over the test period for the following rate proceeding (currently 3 years), subject to regulatory approval.
  - The regulator for the other utility has not yet established a recovery mechanism for the difference in depreciation resulting from the current depreciation study, as the study was incomplete at the time of the most recent rate proceeding. Recovery of this deferral account will be addressed in a future proceeding.
- Two utilities have regulatory deferral accounts capturing a provision for future asset removal costs, which are used to cover the cost of actual asset removal costs. Annual deferrals are determined through the application of net negative salvage depreciation rates developed during depreciation studies.

REFERENCE:

PUB/MH I-118a-c

PREAMBLE TO IR (IF ANY):

QUESTION:

Please file a copy of the survey, including a table indicating identifying each utility.

RESPONSE:

Manitoba Hydro is not able to provide a table indicating responses for each utility as the information collected from the Electricity Canada ("EC") survey was *"provided on a confidential basis solely for the benefit of Electricity Canada members. This information was not to be distributed to or used by non-EC members for any purpose without the explicit consent of participating utilities".* Please refer to PUB/MH I-118 for a summary of the responses to the survey.

As Manitoba Hydro is unable to provide the confidential survey results, research has been conducted to provide publicly available information regarding the use of accounting standards and depreciation procedure in use by Canadian utilities. The results of Manitoba Hydro's research are provided in Figure 1 below. As shown in Figure 1, there is significant variation in practice amongst Canadian utilities with respect to both the accounting standards and the depreciation procedures in use. Manitoba Hydro appears to be the only Canadian utility using a different depreciation procedure for financial reporting versus regulatory reporting purposes, and the only utility using previous Canadian Generally Accepted Accounting Principles in the determination of depreciation expense for regulatory purposes.

The following abbreviations have been used to identify the accounting standards in Figure 1 below:

- International Financial Reporting Standards ("IFRS")
- United States Generally Accepted Accounting Principles (US GAAP)
- Canadian Public Sector Accounting Standards (PSAS)
- Canadian Private Entity Generally Accepted Accounting Principles (CPE GAAP)
- Previous Canadian Generally Accepted Accounting Principles (Prior CGAAP)

Figure 1 Canadian Utility Accounting Standards and Depreciation Procedures

Province / Territory	Utility	Accounting Standards	Depreciation Procedure	Note
Alberta	AltaLink ATCO Electric Fortis Alberta TransAlta	IFRS IFRS US GAAP IFRS	Equal life group Equal life group Equal life group Equal life group	
British Columbia	BC Hydro Fortis BC - Electricity	IFRS US GAAP	Item / individual unit Average life group	
Manitoba	Manitoba Hydro	IFRS & Prior CGAAP	Equal life group and average life group	1
New Brunswick	New Brunswick Power Corporation	IFRS	Equal life group	
Newfoundland and Labrador	NALCOR Energy Newfoundland Power Inc	IFRS US GAAP	Average life group Equal life group	
Northwest Territories	Northwest Territories Power Corporation	PSAS	Average life group	
Nova Scotia	Nova Scotia Power	US GAAP	Equal life group	
Nunavut	Qulliq Energy Corporation	PSAS	Not found in the public domain	
Ontario	Hydro One Ontario Power Generation	US GAAP US GAAP	Average life group Other	 2
Prince Edward Island	Maritime Electric	CPE GAAP	Average life group	
Quebec	Hydro Quebec	US GAAP	Not found in the public domain	
Saskatchewan	SaskPower	IFRS	Average life group	
Yukon	ATCO Energy Yukon Yukon Energy	IFRS	Equal life group Average life group	

Explanatory Notes:

1. Manitoba Hydro uses the equal life group procedure for financial reporting purposes and the average life group procedure applied to prior CGAAP components for regulatory reporting purposes.
2. Ontario Power Generation (OPG) determines average service lives through depreciation studies. OPG develops depreciation rates by applying these service lives to assets on a straight-line basis, except for computers which use declining balance. From material found in the public record, OPG does not appear to use either the average life group or equal life group depreciation procedure in the development of depreciation rates.

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REFERENCE:

Appendix 3.3 pg. 28 Figure 16

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please file an update to the figure 16 schedule detailing depreciation and amortization expense, including the years 2022/23 to 2026/27.
b) Please provide the same table as in (a) based on the Concentric 2019 depreciation study ASL rates (no net salvage).
c) Please provide the same table as in (a) based on Board approved 2014 ASL rates (no net salvage).
d) Please provide a similar table as in (a) based on the ALG – Remaining Life study filed in the application.
e) Please provide a similar table as in (a) based on the ELG – Remaining Life rates filed in the application.

RESPONSE:

a) Figure 1 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 as included in the long-term Financial Forecast Scenario. The depreciation amounts in the forecast have been calculated based on the ELG depreciation rates from the Concentric 2019 Depreciation Study (MFR 95 Tables 1A & 1B) with updated depreciation rates for Selkirk Generating Station and Right-of-Use assets as described in the response to PUB/MH I-136.

b) Figure 2 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 calculated based on the Concentric 2019 Depreciation Study ALG depreciation rates (MFR 95 Tables 3A & 3B) with updated depreciation rates for Selkirk Generating Station and Right-of-Use assets as described in the response to PUB/MH I-136. These depreciation rate do not contain negative salvage factors.

c) Figure 3 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 calculated based on the Concentric 2014 Depreciation Study ASL rates (no negative salvage) except for Keeyask Generating Station which uses rates from the 2019 Deprecation Study as Keeyask was not included in the 2014 Depreciation Study.

d) Figure 4 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 calculated based on the ALG – Remaining Life depreciation rates provided by Alliance Consulting Group (Appendix 9.11). As described in Appendix 9.12, Section 1.2.1, IFRS-Compliant ASL componentization has not been implemented in Manitoba Hydro's financial systems, and as such assumptions and estimates have been applied to determine the depreciation amounts presented in Figure 4. In addition, as discussed in Appendix 9.12, Section 1.2.1, and in the response PUB/MH I-128 parts d & e, please note that although use of the remaining life technique is not consistent with Manitoba Hydro's established past practice, the use of the remaining life technique in combination with ALG does not result in material differences to depreciation expense. The impact to forecast depreciation expense from use of the remaining life vs whole life technique is estimated to be approximately $82 thousand per year.

e) Figure 5 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 calculated based on the ELG – Remaining Life depreciation rates provided by Alliance Consulting Group (Appendix 9.12 - Attachment 1). As discussed in Appendix 9.12, Section 1.2.2, use of the remaining life technique is not consistent with Manitoba Hydro's established past practice and has a material impact on ELG depreciation rates. The impact to the forecast scenario from use of the ELG remaining-life depreciation rates compared to the ELG whole-life depreciation rates provided in Appendix 9.12 Attachment 2 is $10.3 million for 2022/23, increasing to $11.4 million for 2026/27.

Figure 6 below provides a schedule of forecast depreciation and amortization expense for the years 2022/23 through 2026/27 calculated based on the updated ELG – Whole Life depreciation rates provided in Appendix 9.12 Attachment 2. This scenario has been provided for consistency with Manitoba Hydro's established ELG depreciation

methodology. The ELG depreciation rates in this scenario use service lives equivalent to that used in the Alliance IFRS-Compliant ASL depreciation study.

Figure 1 Depreciation and Amortization Expense – Concentric 2019 Depreciation Study - ELG

1	**MANITOBA HYDRO**					
2	**DEPRECIATION AND AMORTIZATION EXPENSE**					
3	**LONG-TERM FINANCIAL FORECAST**					
4	***(in thousands)***					
5		**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**
6	**PROPERTY, PLANT & EQUIPMENT**					
7	**Generation**					
8	Hydraulic generating stations	$ 211 656	$ 215 650	$ 219 560	$ 225 567	$ 230 674
9	Thermal generating stations	5 491	5 669	5 891	6 153	6 404
10	Diesel generating stations	1 464	1 479	1 498	1 519	1 541
11		218 611	222 798	226 949	233 239	238 619
12	**Transmission**					
13	Transmission	45 263	46 133	47 176	47 822	49 153
14		45 263	46 133	47 176	47 822	49 153
15	**Stations**					
16	Substations	166 806	169 507	171 466	173 747	173 461
17	Transformers	2 347	2 347	2 347	2 347	2 347
18		169 153	171 854	173 813	176 094	175 808
19	**Distribution**					
20	Subtransmission lines	9 558	9 881	10 151	10 456	10 803
21	Distribution lines	80 599	83 279	85 856	88 675	91 353
22	Meters & transformers	5 697	5 745	5 788	5 823	5 792
23		95 854	98 905	101 795	104 954	107 948
24	**Other**					
25	Communications	21 904	21 812	21 102	21 204	21 718
26	Motor vehicles	18 306	19 639	21 112	22 748	24 528
27	Structures & improvements	11 396	11 150	11 528	12 062	12 616
28	General Equipment	16 979	17 371	16 608	16 181	16 379
29	Right of use	716	716	420	385	284
30	Miscellaneous	(3,075)	(3,093)	(3,041)	(3,117)	(3,194)
31	Corporate allocation	(981)	(981)	(981)	(981)	(981)
32		65 245	66 614	66 748	68 482	71 350
33	**Total depreciation on PP&E**	**594 126**	**606 304**	**616 481**	**630 591**	**642 878**
34	**INTANGIBLES**					
35	Computer development	18 585	19 594	20 322	20 634	20 198
36	Easements	2,734	2,887	2,952	3,024	3,121
37	**Total amortization of intangibles**	**21 319**	**22 481**	**23 274**	**23 658**	**23 319**
38	**Total loss on disposition**	**3 000**	**3 000**	**3 000**	**3 000**	**3 000**
39	**Total depreciation & amortization expense**	**$ 618 445**	**$ 631 785**	**$ 642 755**	**$ 657 249**	**$ 669 197**
40	Year over year $ change		$ 13 340	$ 10 970	$ 14 494	$ 11 948
41	Year over year % change		2.2%	1.7%	2.3%	1.8%

Figure 2 Depreciation and Amortization Expense – Concentric 2019 Depreciation Study – ALG (no salvage)

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
SCENARIO - 2019 ASL (NO SALVAGE) DEPRECIATION RATES
(in thousands)

	2022/23	2023/24	2024/25	2025/26	2026/27
PROPERTY, PLANT & EQUIPMENT					
Generation					
Hydraulic generating stations	$ 194 447	$ 198 145	$ 201 800	$ 207 507	$ 212 367
Thermal generating stations	5,247	5,364	5,510	5,683	5,849
Diesel generating stations	1,279	1,292	1,308	1,327	1,347
	200 973	204 801	208 618	214 517	219 563
Transmission					
Transmission	41,294	42,085	43,039	43,626	44,840
	41 294	42 085	43 039	43 626	44 840
Stations					
Substations	152,021	154,439	156,087	157,942	157,304
Transformers	2,347	2,347	2,347	2,347	2,347
	154 368	156 786	158 434	160 289	159 651
Distribution					
Subtransmission lines	7,238	7,489	7,696	7,932	8,201
Distribution lines	67,031	69,263	71,397	73,754	75,963
Meters & transformers	5,622	5,664	5,701	5,731	5,694
	79 891	82 416	84 794	87 417	89 858
Other					
Communications	20,497	20,393	19,684	19,786	20,283
Motor vehicles	17,141	18,394	19,779	21,317	22,991
Structures & improvements	10,856	10,613	10,979	11,501	12,043
General Equipment	16,979	17,371	16,608	16,181	16,379
Right of use	716	716	420	385	284
Miscellaneous	(3,075)	(3,093)	(3,041)	(3,117)	(3,194)
Corporate allocation	(981)	(981)	(981)	(981)	(981)
	62 133	63 413	63 448	65 072	67 805
Total depreciation on PP&E	**538 659**	**549 501**	**558 333**	**570 921**	**581 717**
INTANGIBLES					
Computer development	20,095	21,182	21,988	22,384	22,035
Easements	2,734	2,887	2,952	3,024	3,121
Total amortization of intangibles	**22 829**	**24 069**	**24 940**	**25 408**	**25 156**
Total loss on disposition	**27,000**	**28,000**	**28,000**	**29,000**	**29,000**
Total depreciation & amortization expense	**$ 588,488**	**$ 601,570**	**$ 611,273**	**$ 625,329**	**$ 635,873**
Year over year $ change		$ 13 082	$ 9 703	$ 14 056	$ 10 544
Year over year % change		2.2%	1.6%	2.3%	1.7%

Figure 3 Depreciation and Amortization Expense – Concentric 2014 Depreciation Study – ASL (no salvage)

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
FORECAST SCENARIO - 2014 ASL (NO NET SALVAGE) DEPRECIATION RATES
(in thousands)

	2022/23	2023/24	2024/25	2025/26	2026/27
PROPERTY, PLANT & EQUIPMENT					
Generation					
Hydraulic generating stations	$ 201 294	$ 205 377	$ 209 969	$ 222 240	$ 233 832
Thermal generating stations	6,503	6,622	6,773	6,950	7,119
Diesel generating stations	1,711	1,727	1,746	1,768	1,791
	209 508	213 726	218 488	230 958	242 742
Transmission					
Transmission	40,430	41,207	42,143	42,717	43,914
	40 430	41 207	42 143	42 717	43 914
Stations					
Substations	150,032	152,534	154,262	156,022	155,304
Transformers	2,314	2,314	2,314	2,314	2,314
	152 346	154 848	156 576	158 336	157 618
Distribution					
Subtransmission lines	6,947	7,195	7,393	7,625	7,897
Distribution lines	66,785	69,007	71,106	73,427	75,547
Meters & transformers	6,399	6,468	6,532	6,591	6,576
	80 131	82 670	85 031	87 643	90 020
Other					
Communications	21,726	21,506	20,459	20,541	21,033
Motor vehicles	14,010	15,032	16,161	17,415	18,780
Structures & improvements	10,722	10,485	10,844	11,355	11,885
General Equipment	16,340	16,744	15,990	15,578	15,781
Right of use	716	716	420	385	284
Miscellaneous	(2,870)	(2,865)	(2,765)	(2,837)	(2,911)
Corporate allocation	(1,006)	(1,006)	(1,006)	(1,006)	(1,006)
	59 638	60 612	60 103	61 431	63 846
Total depreciation on PP&E	**542 053**	**553 063**	**562 341**	**581 085**	**598 140**
INTANGIBLES					
Computer development	21,874	23,041	23,922	24,408	24,074
Easements	2,734	2,887	2,952	3,024	3,121
Total amortization of intangibles	**24 608**	**25 928**	**26 874**	**27 432**	**27 195**
Total loss on disposition	**27,000**	**28,000**	**28,000**	**29,000**	**29,000**
Total depreciation & amortization expense	**$ 593,661**	**$ 606,991**	**$ 617,215**	**$ 637,517**	**$ 654,335**
Year over year $ change		$ 13 330	$ 10 224	$ 20 302	$ 16 818
Year over year % change		2.2%	1.7%	3.3%	2.6%

Figure 4 Depreciation and Amortization Expense – Alliance ALG Remaining Life

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
FORECAST SCENARIO - IFRS-COMPLIANT ALG REMAINING LIFE DEPRECIATION RATES
(in thousands)

	2022/23	2023/24	2024/25	2025/26	2026/27
PROPERTY, PLANT & EQUIPMENT					
Generation					
Hydraulic generating stations	$ 214 926	$ 218 881	$ 222 862	$ 229 204	$ 234 508
Thermal generating stations	3 766	3 949	4 180	4 452	4 712
Diesel generating stations	1 122	1 136	1 153	1 172	1 192
	219 814	223 966	228 195	234 828	240 412
Transmission					
Transmission	44 596	45 416	46 400	46 994	48 256
	44 596	45 416	46 400	46 994	48 256
Stations					
Substations	160 918	163 427	165 212	167 256	166 769
Transformers	2 359	2 359	2 359	2 359	2 359
	163 277	165 786	167 571	169 615	169 128
Distribution					
Subtransmission lines	7 353	7 646	7 895	8 175	8 490
Distribution lines	71 054	73 459	75 794	78 339	80 705
Meters & transformers	5 490	5 520	5 544	5 561	5 511
	83 897	86 625	89 233	92 075	94 706
Other					
Communications	18 766	18 793	18 357	18 577	19 121
Motor vehicles	16 456	17 704	19 083	20 615	22 281
Structures & improvements	15 538	15 253	15 611	16 105	16 614
General Equipment	21 382	21 283	20 214	19 317	19 036
Right of use	716	716	420	385	284
Miscellaneous	(3,606)	(3,609)	(3,562)	(3,651)	(3,742)
Corporate allocation	(981)	(981)	(981)	(981)	(981)
	68 271	69 159	69 142	70 367	72 613
Total depreciation on PP&E	**579 855**	**590 952**	**600 541**	**613 879**	**625 115**
INTANGIBLES					
Computer development	23 526	24 826	25 596	25 419	24 056
Easements	2,734	2,887	2,952	3,024	3,121
Total amortization of intangibles	**26 260**	**27 713**	**28 548**	**28 443**	**27 177**
Total loss on disposition	22 000	23 000	23 000	23 000	24 000
Total depreciation & amortization expense	**$ 628 115**	**$ 641 665**	**$ 652 089**	**$ 665 322**	**$ 676 292**
Year over year $ change		$ 13 550	$ 10 424	$ 13 233	$ 10 970
Year over year % change		2.2%	1.6%	2.0%	1.6%

Figure 5 Depreciation and Amortization Expense – Alliance ELG Remaining Life

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
FORECAST SCENARIO - ELG REMAINING LIFE DEPRECIATION RATES
(in thousands)

	2022/23	2023/24	2024/25	2025/26	2026/27
PROPERTY, PLANT & EQUIPMENT					
Generation					
Hydraulic generating stations	$ 215 058	$ 219 052	$ 222 968	$ 229 020	$ 234 074
Thermal generating stations	3 994	4 168	4 386	4 644	4 890
Diesel generating stations	1 366	1 381	1 398	1 419	1 440
	220 418	224 601	228 752	235 083	240 404
Transmission					
Transmission	46 376	47 239	48 274	48 900	50 223
	46 376	47 239	48 274	48 900	50 223
Stations					
Substations	178 189	180 850	182 774	185 054	184 706
Transformers	2 270	2 270	2 270	2 270	2 270
	180 459	183 120	185 044	187 324	186 976
Distribution					
Subtransmission lines	9 641	9 970	10 247	10 559	10 914
Distribution lines	81 695	84 434	87 098	89 988	92 723
Meters & transformers	4 600	4 712	4 819	4 928	4 990
	95 936	99 116	102 164	105 475	108 627
Other					
Communications	19 984	20 085	19 723	20 014	20 633
Motor vehicles	19 230	20 485	21 871	23 411	25 087
Structures & improvements	13 130	13 019	13 417	13 926	14 457
General Equipment	19 014	18 981	18 111	17 400	17 232
Right of use	716	716	420	385	284
Miscellaneous	(3,360)	(3,385)	(3,358)	(3,443)	(3,530)
Corporate allocation	(1 012)	(1 012)	(1 012)	(1 012)	(1 012)
	67 702	68 889	69 172	70 681	73 151
Total depreciation on PP&E	**610 891**	**622 965**	**633 406**	**647 463**	**659 381**
INTANGIBLES					
Computer development	21 975	23 226	24 014	23 966	22 873
Easements	2,734	2,887	2,952	3,024	3,121
Total amortization of intangibles	**24 709**	**26 113**	**26 966**	**26 990**	**25 994**
Total loss on disposition	3 000	3 000	3 000	3 000	3 000
Total depreciation & amortization expense	**$ 638 600**	**$ 652 078**	**$ 663 372**	**$ 677 453**	**$ 688 375**
Year over year $ change		$ 13 478	$ 11 294	$ 14 081	$ 10 922
Year over year % change		2.1%	1.7%	2.1%	1.6%

Figure 6 Depreciation and Amortization Expense – Updated ELG Whole Life

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
FORECAST SCENARIO - UPDATED ELG WHOLE LIFE DEPRECIATION RATES
(in thousands)

	2022/23	2023/24	2024/25	2025/26	2026/27
PROPERTY, PLANT & EQUIPMENT					
Generation					
Hydraulic generating stations	$ 214 135	$ 218 094	$ 221 968	$ 227 969	$ 232 974
Thermal generating stations	3 915	4 086	4 300	4 553	4 795
Diesel generating stations	1 300	1 314	1 331	1 351	1 372
	219 350	223 494	227 599	233 873	239 141
Transmission					
Transmission	45 876	46 725	47 742	48 352	49 654
	45 876	46 725	47 742	48 352	49 654
Stations					
Substations	172 743	175 362	177 237	179 439	179 039
Transformers	2 170	2 170	2 170	2 170	2 170
	174 913	177 532	179 407	181 609	181 209
Distribution					
Subtransmission lines	9 488	9 811	10 081	10 386	10 733
Distribution lines	80 287	82 966	85 571	88 398	91 070
Meters & transformers	4 463	4 573	4 680	4 788	4 850
	94 238	97 350	100 332	103 572	106 653
Other					
Communications	19 561	19 644	19 267	19 540	20 133
Motor vehicles	18 409	19 624	20 967	22 458	24 081
Structures & improvements	13 028	12 909	13 292	13 784	14 298
General Equipment	19 009	18 966	18 083	17 359	17 176
Right of use	716	716	420	385	284
Miscellaneous	(3,303)	(3,325)	(3,294)	(3,377)	(3,463)
Corporate allocation	(1 009)	(1 009)	(1 009)	(1 009)	(1 009)
	66 411	67 525	67 726	69 140	71 500
Total depreciation on PP&E	**600 788**	**612 626**	**622 806**	**636 546**	**648 157**
INTANGIBLES					
Computer development	21 811	23 052	23 824	23 764	22 656
Easements	2,734	2,887	2,952	3,024	3,121
Total amortization of intangibles	**24 545**	**25 939**	**26 776**	**26 788**	**25 777**
Total loss on disposition	**3 000**	**3 000**	**3 000**	**3 000**	**3 000**
Total depreciation & amortization expense	**$ 628 333**	**$ 641 565**	**$ 652 582**	**$ 666 334**	**$ 676 934**
Year over year $ change		$ 13 232	$ 11 017	$ 13 752	$ 10 600
Year over year % change		2.1%	1.7%	2.1%	1.6%

REFERENCE:

Appendix 4.3 Page 21, Figure 9, Appendix 9.10 Figures 1, Figure 2 & Figure 6

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide a comparison of the depreciation methodologies excluding gains and losses from the determination. Please provide a graph and table comparison on this basis.

RESPONSE:

For clarification purposes, Appendix 9.10 was renumbered and is now Appendix 9.12.

Figures 1 and 2 below provide a comparison of IFRS-compliant ASL and ELG depreciation expense excluding gains and losses on disposition of assets based on the information provided in Appendix 9.12.

Figure 1 Depreciation & Amortization Expense - IFRS Compliant ASL versus ELG

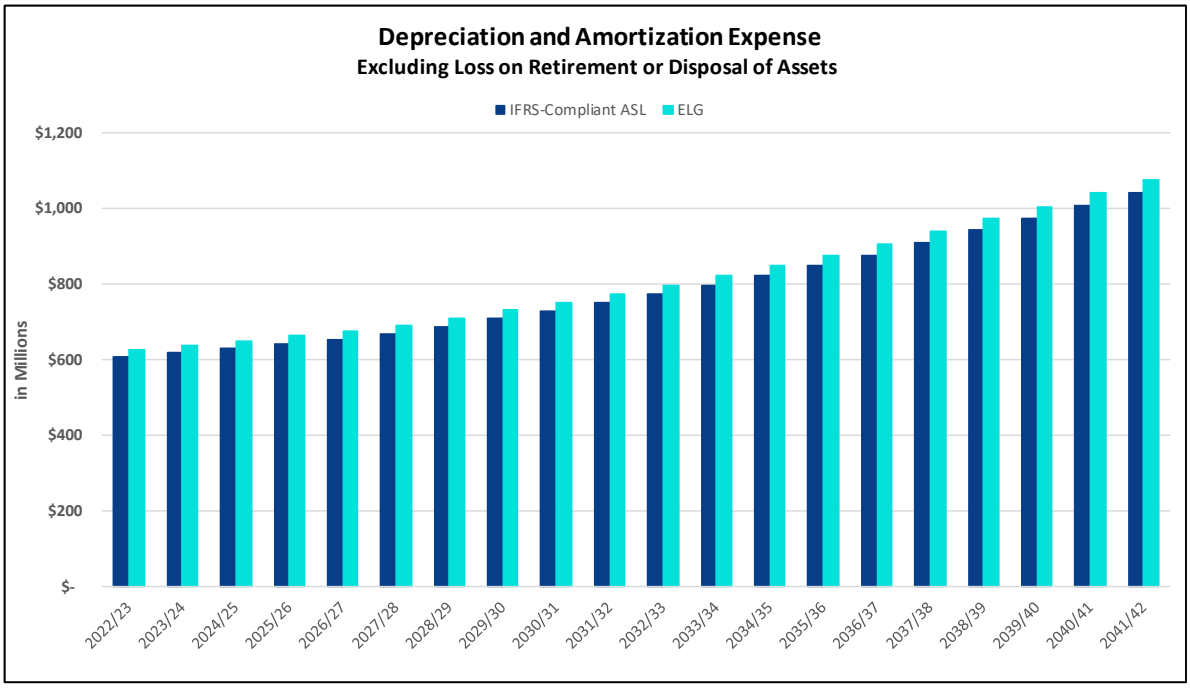

Figure 2 Difference in Depreciation & Amortization Expense - IFRS Compliant ASL versus ELG

Depreciation and Amortization Expense Excluding Loss on Retirement or Disposal of Assets *in $ Millions*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
IFRS-Compliant ASL	$ 606	$ 619	$ 629	$ 643	$ 653	$ 670	$ 688	$ 708	$ 729	$ 751
ELG	625	639	649	664	674	692	711	731	752	775
Difference - IFRS-ASL vs ELG	**$ (19)**	**$ (20)**	**$ (20)**	**$ (21)**	**$ (21)**	**$ (22)**	**$ (23)**	**$ (23)**	**$ (23)**	**$ (24)**
Percentage Difference - IFRS-ASL vs ELG	-3.1%	-3.2%	-3.2%	-3.3%	-3.2%	-3.3%	-3.3%	-3.2%	-3.2%	-3.2%

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
IFRS-Compliant ASL	$ 773	$ 797	$ 823	$ 848	$ 876	$ 910	$ 944	$ 974	$ 1,009	$ 1,044
ELG	798	823	849	876	905	939	974	1,005	1,041	1,077
Difference - IFRS-ASL vs ELG	**$ (25)**	**$ (26)**	**$ (26)**	**$ (28)**	**$ (29)**	**$ (29)**	**$ (30)**	**$ (31)**	**$ (32)**	**$ (33)**
Percentage Difference - IFRS-ASL vs ELG	-3.2%	-3.3%	-3.2%	-3.3%	-3.3%	-3.2%	-3.2%	-3.2%	-3.2%	-3.2%

REFERENCE:

Appendix 4.3 pages 17 and 23

PREAMBLE TO IR (IF ANY):

Figure 6 provides a table with the Expected Growth in Depreciation Method Regulatory Deferral Account Balances.

QUESTION:

a) Has Manitoba Hydro discussed the current balance in the Depreciation Method Deferral account with its auditors? If so, did they express any concern or have any comment regarding the growth and future disposition of the account?
b) Please elaborate on the statement on page 17 "This accounting treatment has been discussed with Manitoba Hydro's external auditors." What was discussed? What was the outcome?

RESPONSE:

a) Manitoba Hydro has discussions with its external auditor regarding its regulatory deferrals in conjunction with the audit.

   As part of an audit in accordance with Canadian generally accepted auditing standards, an auditor applies professional judgment and maintains professional skepticism throughout the audit. They also evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

   The auditor provides an opinion on whether the financial statements as a whole are presented fairly, in all material respects, in accordance with the applicable financial reporting framework. Manitoba Hydro's auditor issued an unmodified opinion in the auditors' report on the consolidated financial statements as at and for the year ended March 31, 2022.

Manitoba Hydro has discussed with its auditor that the PUB has deferred any decision on these deferral accounts until the outstanding Directives 8 and 9 of Order 43/13 are addressed. Notably, the PUB has advised that no decision would be made until Manitoba Hydro completed an IFRS-compliant ASL depreciation study.

Management is responsible for the preparation of the financial statements and their accuracy. Each year end, management is required to assess the likelihood of future recovery of rate regulated balances and compliance with IFRS 14. In the absence of direction from the PUB on a recovery mechanism, management is concerned with continued growth in the deferral account, as IFRS 14 requires sufficient evidence that deferred amounts will be recovered or refunded in future rates.

During the 2021/22 year end audit, management provided an update to its auditor regarding progress on the IFRS-compliant ASL depreciation study. Management indicated to its auditor that Manitoba Hydro intended to file the IFRS-compliant ASL study at the upcoming GRA and anticipated that it was more likely than not that the PUB would provide its direction on the future recovery of this deferral account in the Order issued at the conclusion of this GRA. Once an Order is received from the PUB addressing this deferral account, management will assess recoverability based on the direction provided.

b) The aforementioned quote in the question is not located on page 17. This quote appears on page 22 of Appendix 4.3 and refers to Manitoba Hydro's assessment that implementation of IFRS-compliant ASL would require retrospective restatement.

Manitoba Hydro's retrospective treatment of the implementation of IFRS-compliant ASL depreciation in the scenario presented in Appendix 9.12 was based on interpretation of accounting standards at the time of IFRS implementation by Manitoba Hydro effective for the year ended March 31, 2016.

Based on the questions raised by intervenors in the current Application, Manitoba Hydro has reviewed recent amendments to existing accounting standards (IAS 8) and further guidance provided in IAS 16 Basis for Conclusions paragraph 33) and agrees that there appears to be justification for treating a change from ELG to IFRS-compliant ASL deprecation as a change in accounting estimate, which would apply prospectively.

Manitoba Hydro has assessed the impact of prospective vs. retrospective changes and has concluded that the impact on the total forecast deprecation related expenses would not be material. Figure 1 provides a comparison of total depreciation related expense determined for the IFRS-compliant ASL scenario when applied retrospectively versus prospectively. The difference is due to increased amortization of regulatory deferral accounts in the retrospective scenario resulting from opening balance adjustments.

Figure 1 Comparison of Retrospective vs Prospective Application of IFRS-Compliant ASL Depreciation

Total Depreciation Methodology Related Expense Including Net Movement in Regulatory Deferral Accounts										
in Millions	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
IFRS-Compliant ASL - Retrospective	$ 562	$ 585	$ 609	$ 631	$ 648	$ 672	$ 698	$ 724	$ 752	$ 782
IFRS-Compliant ASL - Prospective	562	583	605	627	644	668	694	720	748	778
Difference - IFRS-ASL Retrospective vs Prospective	$ -	$ 2	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4
Percentage Difference	0.0%	0.3%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.5%	0.5%
	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
IFRS-Compliant ASL - Retrospective	$ 809	$ 840	$ 872	$ 903	$ 936	$ 977	$ 1,012	$ 1,042	$ 1,078	$ 1,114
IFRS-Compliant ASL - Prospective	805	836	868	899	932	973	1,008	1,038	1,074	1,110
Difference - IFRS-ASL Retrospective vs Prospective	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4
Percentage Difference	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Figure 2 shows the difference in total depreciation related expense determined based on prospective application of IFRS-compliant ASL is not materially different from that determined with use of ELG. The ELG amounts included in Figure 2 below reflect the updated ELG results provided in Appendix 9.12, calculated based on the service-life equivalent whole-life ELG depreciation rates provided in Appendix 9.12 Attachment 2.

Figure 2 Difference in Total Depreciation Related Expense – IFRS-Compliant ASL (Prospective) vs ELG

Total Depreciation Methodology Related Expense Including Net Movement in Regulatory Deferral Accounts										
in Millions	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
IFRS-Compliant ASL - Prospective	$ 562	$ 583	$ 605	$ 627	$ 644	$ 668	$ 694	$ 720	$ 748	$ 778
ELG	561	583	605	628	644	669	695	721	748	778
Difference - IFRS-ASL vs ELG	$ 1	$ -	$ -	$ (1)	$ -	$ (1)	$ (1)	$ (1)	$ -	$ -
Percentage Difference - IFRS-ASL vs ELG	0.2%	0.0%	0.0%	-0.2%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	0.0%
	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
IFRS-Compliant ASL - Prospective	$ 805	$ 836	$ 868	$ 899	$ 932	$ 973	$ 1,008	$ 1,038	$ 1,074	$ 1,110
ELG	806	837	869	901	935	975	1,010	1,041	1,077	1,113
Difference - IFRS-ASL vs ELG	$ (1)	$ (1)	$ (1)	$ (2)	$ (3)	$ (2)	$ (2)	$ (3)	$ (3)	$ (3)
Percentage Difference - IFRS-ASL vs ELG	-0.1%	-0.1%	-0.1%	-0.2%	-0.3%	-0.2%	-0.2%	-0.3%	-0.3%	-0.3%

Given that the difference in financial impact between prospective and retrospective application is minimal, the determination of accounting treatment does not influence Manitoba Hydro's position regarding recommendations for the PUB to accept IFRS ELG for regulatory reporting purposes.

Although it appears that Manitoba Hydro may not have to apply a change to IFRS-compliant ASL retrospectively, it would still require significant work effort for prospective implementation. Appendix 4.3 Section 1.4.9 provides the work effort to implement and maintain an IFRS-compliant ASL depreciation methodology. Although the work effort would be reduced with a prospective application it would still be very costly and time-consuming. The following tasks would still be required for implementation as a change in accounting estimate:

- Determination of plant account balances by new sub-component would require analysis of all asset transactions (e.g. additions, retirements, reclassifications) for fiscal years 2019/20 through to implementation date. For purposes of the IFRS-compliant ASL depreciation study, Manitoba Hydro sub-componentized asset transactions up to March 31, 2019.
- Develop and implement changes to all plant asset related IT systems including SAP, C55, RUCES, CSI, and RMS to incorporate the new subcomponents.
- Convert all active and future capital project estimates from the existing asset component level to the new subcomponents as at March 31, 2023.
- Provide company-wide employee training on new subcomponents, focusing on the engineers and finance staff that plan, estimate and budget capital projects.
- Develop and maintain temporary processes such as accruals and offline spreadsheet accounting to bridge between existing components and new subcomponents from the effective implementation date until system modifications and data conversion has been completed.

Manitoba Hydro's auditor has not issued an opinion on the matter of whether a change to ASL depreciation procedure would constitute a change in accounting policy under IAS 8. This is because 1) the event (i.e., changing the depreciation procedure from ELG method to ASL method) has not occurred (i.e. not part of previously issued annual audited

financial statements); and 2) Manitoba Hydro has not engaged its auditor to provide such an opinion. Manitoba Hydro has had preliminary discussions with the auditor on this matter.

Should the PUB direct Manitoba Hydro to implement an IFRS-compliant ASL depreciation procedure for regulatory reporting purposes further analysis of the accounting standards would be required to finalize the accounting treatment.

REFERENCE:

PUB/MH I-127

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide the same comparison in Figure 1 utilizing the 2019 Concentric Study ASL Depreciation Rates.

RESPONSE:

Figure 1 below provides a comparison of depreciation and amortization expense for the 2021/22 to 2024/25 years calculated using the IFRS-Compliant ASL depreciation rates provided by Alliance Consulting Group (Appendix 9.11) and using the previous CGAAP ASL rates from the 2019 Depreciation Study with updated depreciation rates for Selkirk Generating Station and Right-of-Use assets as described in the response to PUB/MH I-136 and provided in the response to PUB/MH I-82 Attachment 2.

Figure 1: Comparison of IFRS-Compliant ASL and CGAAP ASL (2019 Study and Subsequent Updates) Depreciation Rate Scenarios

MANITOBA HYDRO
DEPRECIATION AND AMORTIZATION EXPENSE
COMPARISON OF DEPRECIATION RATE SCENARIOS

(in thousands)	IFRS-Compliant ASL Scenario				CGAAP ASL Scenario (2019 Study + Updates)				IFRS-Compliant ASL vs CGAAP ASL (2019 Study)			
	2021/22	2022/23	2023/24	2024/25	2021/22	2022/23	2023/24	2024/25	2021/22	2022/23	2023/24	2024/25
PROPERTY, PLANT & EQUIPMENT												
Generation												
Hydraulic generating stations	$ 188 418	$ 214 926	$ 218 881	$ 222 862	$ 170 805	$ 194 447	$ 198 145	$ 201 800	$ 17 613	$ 20 479	$ 20 736	$ 21 062
Thermal generating stations	5 550	3 766	3 949	4 180	7 434	5 247	5 364	5 510	(1 884)	(1 481)	(1 415)	(1 330)
Diesel generating stations	1 091	1 122	1 136	1 153	1 243	1 279	1 292	1 308	(152)	(157)	(156)	(155)
	195 058	219 814	223 966	228 195	179 482	200 973	204 801	208 618	15 577	18 841	19 165	19 577
Transmission												
Transmission	43 460	44 596	45 416	46 400	40 259	41 294	42 085	43 039	3 201	3 302	3 331	3 361
	43 460	44 596	45 416	46 400	40 259	41 294	42 085	43 039	3 201	3 302	3 331	3 361
Stations												
Substations	155 441	160 918	163 427	165 212	146 557	152 021	154 439	156 087	8 884	8 897	8 988	9 125
Transformers	2 333	2 359	2 359	2 359	1 984	2 347	2 347	2 347	349	12	12	12
	157 774	163 277	165 786	167 571	148 541	154 368	156 786	158 434	9 233	8 909	9 000	9 137
Distribution												
Subtransmission lines	7 005	7 353	7 646	7 895	6 928	7 238	7 489	7 696	77	115	157	199
Distribution lines	66 882	71 054	73 459	75 794	63 017	67 031	69 263	71 397	3 865	4 023	4 196	4 397
Meters & transformers	5 396	5 490	5 520	5 544	5 519	5 622	5 664	5 701	(123)	(132)	(144)	(157)
	79 283	83 897	86 625	89 233	75 464	79 891	82 416	84 794	3 819	4 006	4 209	4 439
Other												
Communications	18 352	18 766	18 793	18 357	20 097	20 497	20 393	19 684	(1 745)	(1 731)	(1 600)	(1 327)
Motor vehicles	15 214	16 456	17 704	19 083	15 878	17 141	18 394	19 779	(664)	(685)	(690)	(696)
Structures & improvements	15 211	15 538	15 253	15 611	10 504	10 856	10 613	10 979	4 707	4 682	4 640	4 632
General Equipment	20 996	21 382	21 283	20 214	16 352	16 979	17 371	16 608	4 644	4 403	3 912	3 606
Right of use	1 083	716	716	420	1 083	716	716	420	-	-	-	-
Miscellaneous	(3 628)	(3 606)	(3 609)	(3 562)	(2 893)	(3 075)	(3 093)	(3 041)	(735)	(531)	(516)	(521)
Corporate Allocation	(956)	(981)	(981)	(981)	(1 480)	(981)	(981)	(981)	524	-	-	-
	66 271	68 271	69 159	69 142	59 541	62 133	63 413	63 448	6 731	6 138	5 746	5 694
Total Depreciation on PP & E	**541 847**	**579 855**	**590 952**	**600 541**	**503 287**	**538 659**	**549 501**	**558 333**	**38 561**	**41 196**	**41 451**	**42 208**
INTANGIBLES												
Computer Development	26 071	23 526	24 826	25 596	21 853	20 095	21 182	21 988	4 218	3 431	3 644	3 608
Easements	2 619	2 734	2 887	2 952	2 619	2 734	2 887	2 952	-	-	-	-
Total Depreciation on Intangibles	**28 690**	**26 260**	**27 713**	**28 548**	**24 472**	**22 829**	**24 069**	**24 940**	**4 218**	**3 431**	**3 644**	**3 608**
Total Gain/Loss on Disposition	21 836	22 000	23 000	23 000	25 295	27 000	28 000	28 000	(3 459)	(5 000)	(5 000)	(5 000)
Total Depreciation & Amortization Expense	**$ 592,373**	**$ 628,115**	**$ 641,665**	**$ 652,089**	**$ 553,054**	**$ 588,488**	**$ 601,570**	**$ 611,273**	**$ 39,320**	**$ 39,627**	**$ 40,095**	**$ 40,816**

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REFERENCE:

Appendix 9.9. Appendix 9.10 pg. 5.

PREAMBLE TO IR (IF ANY):

This study was prepared to address Directive 8 of Manitoba Public Utilities Board Order 43/13 which ordered:

> *"8. That Manitoba Hydro file updated depreciation rates and schedules based on an International Financial Reporting Standards-compliant Average Service Life methodology with the next General Rates Application."*
>
> *This study reviews the existing life parameters assigned to the source accounts, analyzes the new subcomponent level accounts, and develops unique average service lives to calculate depreciation using the average life group ("ALG"), and remaining life ("RL") methodology for each subcomponent account. The depreciation rates are designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of Manitoba Hydro's property on a straight-line basis.*
>
> *Alliance developed the IFRS-compliant ASL depreciation rates using the remaining-life technique, which is inconsistent with Manitoba Hydro's established practice of using whole-life-based depreciation rates. When used in combination with the average life group procedure, however, the change from whole life to remaining life technique did not result in a material difference in depreciation expense.*

QUESTION:

a) Please provide the terms of reference provided to Alliance for the preparation of the study.

b) Why did the Corporation not direct the preparation of an IFRS-compliant Average Service Life, whole life technique to ensure the analysis was prepared on a comparative basis with Manitoba Hydro's current ELG whole life-based methodology?
c) Please provide a description and comparison between the whole life approach and the remaining life approach and discuss the merits of each approach.
d) Please indicate how the depreciation rates by account for the ASL approach would change if a whole file approach were followed.
e) Please provide a comparison of the rates under a whole life procedure with the remaining life procedure and indicate the overall difference in depreciation expenses.
f) Please provide a comparison of the depreciation rate for substations based on the ASL whole-life approach and compare with that provided in the analysis.

RESPONSE:

a) Please see PUB/MH I-140 Attachment 1 which includes the terms of reference provided to Alliance for the preparation of an IFRS-compliant ASL depreciation study as outlined in Schedule A.

b) Manitoba Hydro depreciation studies have historically been prepared using a whole life technique and as such Manitoba Hydro did not anticipate the need to stipulate this request in the terms of reference for the IFRS-compliant ASL depreciation study deliverable. Preliminary results from Alliance reflected use of the average life group (ALG) procedure and remaining life technique. Manitoba Hydro's analysis of those preliminary results indicated that the change in technique was not resulting in a material difference in ALG study outcome. Please see the response to (d) below for a detailed explanation on the ASL differences between whole life technique and remaining life technique as it applies to Manitoba Hydro's forecasted depreciation.

c) The following response was provided by Alliance Consulting Group (Alliance):

Whole Life:

In a whole life representation, the annual accrual rate is computed by the following equation:[1]

$$AnnualAccrualRate = \frac{(100\% - NetSalvagePercent)}{AverageServiceLife}$$

As estimates of average life and net salvage may change over time, the whole life approach needs some mechanism to compute a true-up between the current level of accumulated depreciation and a computed amount based on differing life and net salvage parameters. That computed amount for comparison is the theoretical depreciation reserve. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each vintage. The average life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the group is retired. Estimated average service lives and dispersion determine the amount within each average life group. The straight-line remaining-life theoretical reserve ratio at any given age (RR) is calculated as:[2]

$$RR = 1 - \frac{(Average\ Remaining\ Life)}{(Average\ Service\ Life)} * (1 - Net\ Salvage\ Ratio)$$

Application of the Whole life depreciation system generally employs some fixed period over which any differences between book reserve and theoretical reserves can be computed. A true-up adjustment for whole life differences in book and theoretical reserve vary between jurisdiction and the regulated entity. As such capital recovery can vary greatly depending on the precedents employed by each jurisdiction.

[1] Public Utility Depreciation Practices. 1996, p 63
[2] Id, p 63-65

Remaining Life:

Most of Alliance Consulting Group's clients use the remaining life depreciation system which has a true-up mechanism embedded in its calculations. Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$Composite\,\mathrm{Re}\,mainingLife = \frac{\sum OriginalCost - Theoretical\,\mathrm{Re}\,serve}{\sum WholeLifeAnnualAccrual}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation[3]:

$$AnnualDepreciationExpense = \frac{OriginalCost - Book\ \mathrm{Re}\,serve - (OriginalCost) * (1 - NetSalvage\%)}{Composite\,\mathrm{Re}\,mainingLife}$$

where the net salvage percent represents future net salvage.

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:[4]

$$AnnualDepreciationRate = \frac{\sum AnnualDepreciationExpense}{\sum OriginalCost}$$

For this study, the calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in workpapers. Book depreciation reserves are maintained on an account level and were used to compute depreciation rates for each account.

[3] Id. P 64
[4] Id. P 64

Both techniques can adequately represent the recovery of depreciation expense. However, the remaining life technique will automatically ensure the recovery of the remaining investment to be recovered over the remaining life whereas the whole life technique requires an external true-up calculation and provision. In Alliance's opinion, the remaining life technique is a simpler approach since it removes the need to calculate an external true-up provision in depreciation rates.

d) Attachment 1 shows the calculation of IFRS-Compliant ASL whole life depreciation rates based on the remaining life depreciation calculations provided by Alliance Consulting Group. As indicated in Appendix 9.12 section 1.2.1, when used in combination with the average life group procedure, the application of the whole life technique does not deliver materially different results from those determined with application of the remaining life technique. There is only a difference in results between the two techniques when the service life for individual vintages within an account differs from the service life of the account as a whole. When using the average life group procedure, for Manitoba Hydro, differences in service life for individual vintages within an account only occur for accounts subject to life span dates, where the life span date serves to truncate the service life for newer vintages. For Manitoba Hydro's assets, life span dates are applied to hydraulic generating station accounts only, and as such differences in IFRS-compliant ASL remaining life vs IFRS-compliant ASL whole life depreciation results are limited to these accounts. Within hydraulic generation, only accounts with a service life longer than the years remaining to the life span date are affected. The impact to depreciation expense for affected accounts increases as the life span date approaches and proportionately more of the investment within the account is subject to service life truncation. For example, an account with a 50-year service life and a life span date of 140 years from the first acquisition would not start to experience any vintage level disparity in service life until the account is within 50 years of the life span date. Assets added to the account for the first 90 years would be assigned a 50-year service life, and assets added to the account within the 50 years leading up to the life span date would be assigned a reduced service life based on the time remaining to the life span date.

e) Attachment 1 shows the calculation of IFRS-Compliant ASL whole life depreciation rates based on the remaining life depreciation calculations provided by Alliance Consulting Group. Column 9 shows the impact to depreciation expense at an account level, with a

total difference of $82 thousand, limited to hydraulic generation accounts. A comparison of depreciation rates at an account level is provided in column 12.

f) As shown in Attachment 1, pages 15-16 and as discussed in the response to part d) above, there is no difference in IFRS-compliant ASL depreciation rates for substations when calculated using the whole life versus remaining life technique. Manitoba Hydro's substation accounts are not subject to life span dates, and with use of the average life group procedure, the selection of technique only results in a difference for accounts subject to life span dates.

Manitoba Hydro Consolidated Electric Operations
Calculated Annual Depreciation Accrual Rates
For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
MANITOBA HYDRO											
GREAT FALLS											
1105A-01	Concrete Dams, Dykes and Substructures	2063	125 R4	0	1,911,200	24,165	1.26%	(493)	23,672	1.24%	-0.02%
1105A-02	Embankment Dams and Dykes	2063	125 R4	0	12,539,833	156,173	1.25%	(2,150)	154,022	1.23%	-0.02%
1105A-05	Concrete Dams, Dykes and Substructures Refurbishment	2063	75 R4	0	15,628,101	300,499	1.92%	(4,267)	296,232	1.90%	-0.02%
1105A-06	Embankment Dams and Dykes Refurbishments	2063	40 R4	0	4,892,287	200,961	4.11%	-	200,961	4.11%	0.00%
1105A-10	Embankment Dams and Dykes Additions for Sustainment	2063	20 SQ	0	4,854,884	298,613	6.15%	-	298,613	6.15%	0.00%
1105B-01	Superstructures & Support Bldg - Very Long	2063	100 R4	0	302,901	3,694	1.22%	(60)	3,634	1.20%	-0.02%
1105B-02	Superstructures & Support Bldg - Long	2063	75 R4	0	441,303	13,124	2.97%	(121)	13,002	2.95%	-0.02%
1105B-03	Superstructures & Support Bldg - Medium-Long	2063	55 R3	0	3,363,271	72,933	2.17%	(1,391)	71,543	2.13%	-0.04%
1105B-04	Superstructures & Support Bldg - Medium	2063	35 R2	0	3,323,375	107,934	3.25%	(47)	107,886	3.25%	0.00%
1105B-05	Superstructures & Support Bldg - Medium-Short	2063	25 R3	0	1,135,177	63,318	5.58%	-	63,318	5.58%	0.00%
1105B-06	Superstructures & Support Bldg - Short	2063	15 R2	0	426,588	55,151	12.93%	-	55,151	12.93%	0.00%
1105D-01	Spillway Substructure	2063	90 R5	0	21,434	238	1.11%	-	238	1.11%	0.00%
1105D-03	Spillway Additions for Sustainment	2063	25 SQ	0	5,926	279	4.71%	-	279	4.71%	0.00%
1105D-02	Spillway Refurbishment	2063	45 R4	0	959,831	14,629	1.52%	-	14,629	1.52%	0.00%
1105D-04	Spillway Superstructure Original construction	2063	70 R5	0	29,421	5,942	20.20%	-	5,942	20.20%	0.00%
1105D-05	Spillway Superstructure Subsequent modifications	2063	35 R4	0	78,169	2,002	2.56%	-	2,002	2.56%	0.00%
1105E-01	Water Control Support	2063	80 R4	0	13,113,310	244,415	1.86%	(385)	244,030	1.86%	0.00%
1105E-02	Water Control Support Additions for Sustainment	2063	40 R4	0	13,107,960	309,254	2.36%	-	309,254	2.36%	0.00%
1105F-01	Roads, Grounds and Physical Site Security	2063	50 R3	0	1,950,310	43,905	2.25%	(69)	43,836	2.25%	0.00%
1105G-01	Turbine and Generator Structural and Embedments	2063	93 S2	0	3,397,471	58,461	1.72%	(1,906)	56,554	1.66%	-0.06%
1105G-02	Turbine Runner - Fixed Blade	2063	66 L4	0	23,806,937	501,291	2.11%	(2,755)	498,535	2.09%	-0.02%
1105G-04	Turbine Regulation	2063	55 R4	0	15,660,627	342,694	2.19%	(2,077)	340,617	2.17%	-0.02%
1105G-05	Turbine Stationary Parts	2063	64 R4	0	9,542,519	201,669	2.11%	(1,818)	199,851	2.09%	-0.02%
1105G-06	Generator Frames and Core	2063	50 S4	0	16,191,382	364,614	2.25%	(2,067)	362,547	2.24%	-0.01%
1105G-07	Generator Rotor	2063	65 R4	0	2,007,731	37,200	1.85%	(731)	36,469	1.82%	-0.03%
1105G-08	Generator Windings	2063	52 S4	0	4,097,916	85,947	2.10%	(262)	85,685	2.09%	-0.01%
1105P-01	Generating Station Electrical Systems - High Voltage	2063	63 R3	0	12,909,987	249,993	1.94%	(3,339)	246,654	1.91%	-0.03%
1105P-02	Generating Station Electrical Systems - Low Voltage	2063	40 R3	0	4,747,888	97,636	2.06%	(141)	97,495	2.05%	-0.01%
1105Q-01	Mechanical Instrumentation, Control and Protection	2063	55 R2.5	0	2,760,302	67,018	2.43%	(487)	66,531	2.41%	-0.02%
1105Q-02	Analog Instrumentation, Control and Protection	2063	49 R4	0	2,038,696	36,742	1.80%	(116)	36,625	1.80%	0.00%
1105Q-03	Digital Instrumentation, Control and Protection	2063	25 S2	0	21,661,795	725,381	3.35%	-	725,381	3.35%	0.00%
1105Q-04	Backup Power Systems	2063	25 L2.5	0	195,916	6,809	3.48%	-	6,809	3.48%	0.00%
1105Q-05	Cyber and Intelligence Security	2063	10 S3	0	2,050,918	170,770	8.33%	-	170,770	8.33%	0.00%
1105R-01	Mechanical Auxiliary Systems	2063	63 S2	0	9,912,536	173,305	1.75%	(2,206)	171,099	1.73%	-0.02%
1105R-02	Pressure systems	2063	54 R4	0	1,819,174	33,870	1.86%	(308)	33,562	1.84%	-0.02%
1105R-03	Tools and test equipment	2063	15 SQ	0	108,496	5,427	5.00%	-	5,427	5.00%	0.00%
	GREAT FALLS SUBTOTAL				210,995,570	5,076,054	2.41%	(27,198)	5,048,856	2.39%	-0.02%
	Retired Fully Amortized Plant				758,607						0
	GREAT FALLS TOTAL				**211,754,177**	**5,076,054**	**2.41%**	**(27,198)**	**5,048,856**	**2.38%**	**-0.03%**
POINTE DU BOIS											
1110A-01	Concrete Dams, Dykes and Substructures	2055	125 R4	0	174,465	2,420	1.39%	-	2,420	1.39%	0.00%
1110A-02	Embankment Dams and Dykes	2055	125 R4	0	58,155	807	1.39%	-	807	1.39%	0.00%
1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	2055	75 R4	0	1,183,596	26,177	2.21%	(20)	26,157	2.21%	0.00%

Manitoba Hydro Consolidated Electric Operations
Calculated Annual Depreciation Accrual Rates
For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1110A-06	Embankment Dams and Dykes Refurbishments	2055	40 R4	0	202,778	974	0.48%	(0)	974	0.48%	0.00%
1110A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2055	30 SQ	0	1,765,150	14,312	0.81%	-	14,312	0.81%	0.00%
1110B-01	Superstructures & Support Bldg - Very Long	2055	100 R4	0	6,979	97	1.39%	-	97	1.39%	0.00%
1110B-02	Superstructures & Support Bldg - Long	2055	75 R4	0	129,147	2,230	1.73%	(59)	2,171	1.68%	-0.05%
1110B-03	Superstructures & Support Bldg - Medium-Long	2055	55 R3	0	1,168,712	25,636	2.19%	(82)	25,553	2.19%	0.00%
1110B-04	Superstructures & Support Bldg - Medium	2055	35 R2	0	3,527,186	78,206	2.22%	(328)	77,878	2.21%	-0.01%
1110B-05	Superstructures & Support Bldg - Medium-Short	2055	25 R3	0	2,638,086	95,650	3.63%	-	95,650	3.63%	0.00%
1110B-06	Superstructures & Support Bldg - Short	2055	15 R2	0	610,968	22,924	3.75%	-	22,924	3.75%	0.00%
1110D-02	Spillway Refurbishment	2055	45 R4	0	142,469	3,107	2.18%	(1)	3,107	2.18%	0.00%
1110E-01	Water Control Support	2055	80 R4	0	733,122	16,788	2.29%	(5)	16,782	2.29%	0.00%
1110F-01	Roads, Grounds and Physical Site Security	2055	50 R3	0	1,481,524	33,870	2.29%	(13)	33,857	2.29%	0.00%
1110G-01	Turbine and Generator Structural and Embedments	2055	93 S2	0	752,831	9,227	1.23%	(0)	9,227	1.23%	0.00%
1110G-02	Turbine Runner - Fixed Blade	2055	66 L4	0	43,280,798	872,821	2.02%	(551)	872,270	2.02%	0.00%
1110G-04	Turbine Regulation	2055	55 R4	0	3,215,897	55,699	1.73%	(71)	55,628	1.73%	0.00%
1110G-05	Turbine Stationary Parts	2055	64 R4	0	3,480,389	57,289	1.65%	(27)	57,262	1.65%	0.00%
1110G-06	Generator Frames and Core	2055	50 S4	0	1,010,297	19,861	1.97%	(107)	19,754	1.96%	-0.01%
1110G-07	Generator Rotor	2055	65 R4	0	303,637	3,720	1.23%	(0)	3,720	1.23%	0.00%
1110G-08	Generator Windings	2055	52 S4	0	4,953,963	88,669	1.79%	(125)	88,544	1.79%	0.00%
1110L-01	GS Licensing - No Subcomponents	2055	50 SQ	0	185,103	3,529	1.91%	1,301	4,829	2.61%	0.70%
1110P-01	Generating Station Electrical Systems - High Voltage	2055	63 R3	0	7,133,827	121,951	1.71%	(59)	121,893	1.71%	0.00%
1110P-02	Generating Station Electrical Systems - Low Voltage	2055	40 R3	0	2,225,695	42,296	1.90%	(196)	42,100	1.89%	-0.01%
1110Q-01	Mechanical Instrumentation, Control and Protection	2055	55 R2.5	0	261,220	5,330	2.04%	(0)	5,330	2.04%	0.00%
1110Q-02	Analog Instrumentation, Control and Protection	2055	49 R4	0	13,757	138	1.00%	-	138	1.00%	0.00%
1110Q-03	Digital Instrumentation, Control and Protection	2055	25 S2	0	900,984	33,445	3.71%	-	33,445	3.71%	0.00%
1110Q-04	Backup Power Systems	2055	25 L2.5	0	649,565	18,630	2.87%	-	18,630	2.87%	0.00%
1110Q-05	Cyber and Intelligence Security	2055	10 S3	0	1,287,653	128,825	10.00%	-	128,825	10.00%	0.00%
1110R-01	Mechanical Auxiliary Systems	2055	63 S2	0	5,035,410	105,781	2.10%	(510)	105,272	2.09%	-0.01%
1110R-02	Pressure systems	2055	54 R4	0	445,860	8,637	1.94%	(0)	8,637	1.94%	0.00%
	POINTE DU BOIS TOTAL				**88,959,223**	**1,899,045**	**2.13%**	**(854)**	**1,898,191**	**2.13%**	**0.00%**
POINTE DU BOIS NEW SPILLWAY											
1111A-02	Embankment Dams and Dykes	2154	125 R4	0	96,809,302	801,961	0.83%	(0)	801,960	0.83%	0.00%
1111B-02	Superstructures & Support Bldg - Long	2154	75 R4	0	1,472,065	20,086	1.36%	-	20,086	1.36%	0.00%
1111B-03	Superstructures & Support Bldg - Medium-Long	2154	55 R3	0	1,050,665	19,421	1.85%	-	19,421	1.85%	0.00%
1111B-04	Superstructures & Support Bldg - Medium	2154	35 R2	0	1,319,783	39,494	2.99%	-	39,494	2.99%	0.00%
1111B-05	Superstructures & Support Bldg - Medium-Short	2154	25 R3	0	812,174	35,005	4.31%	-	35,005	4.31%	0.00%
1111B-06	Superstructures & Support Bldg - Short	2154	15 R2	0	558,370	41,984	7.52%	-	41,984	7.52%	0.00%
1111D-01	Spillway Substructure	2154	90 R5	0	240,191,309	2,637,138	1.10%	-	2,637,138	1.10%	0.00%
1111D-04	Spillway Superstructure Original construction	2154	70 R5	0	102,939,133	1,447,796	1.41%	-	1,447,796	1.41%	0.00%
1111E-01	Water Control Support	2154	80 R4	0	97,062,968	1,190,327	1.23%	-	1,190,327	1.23%	0.00%
1111F-01	Roads, Grounds and Physical Site Security	2154	50 R3	0	26,863,202	512,677	1.91%	-	512,677	1.91%	0.00%
1111P-02	Generating Station Electrical Systems - Low Voltage	2154	40 R3	0	2,862,890	73,219	2.56%	-	73,219	2.56%	0.00%
1111Q-02	Analog Instrumentation, Control and Protection	2154	49 R4	0	539,264	9,742	1.81%	-	9,742	1.81%	0.00%
	POINTE DU BOIS NEW SPILLWAY TOTAL				**572,481,125**	**6,828,850**	**1.19%**	**(0)**	**6,828,849**	**1.19%**	**0.00%**
SEVEN SISTERS											
1115A-01	Concrete Dams, Dykes and Substructures	2072	125 R4	0	9,831,610	63,257	0.64%	(386)	62,870	0.64%	0.00%
1115A-02	Embankment Dams and Dykes	2072	125 R4	0	5,735,210	51,530	0.90%	(268)	51,262	0.89%	-0.01%

Manitoba Hydro Consolidated Electric Operations
Calculated Annual Depreciation Accrual Rates
For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1115A-05	Concrete Dams, Dykes and Substructures Refurbishment	2072	75 R4	0	23,270,259	308,532	1.33%	(586)	307,946	1.32%	-0.01%
1115A-06	Embankment Dams and Dykes Refurbishments	2072	40 R4	0	2,532,721	64,008	2.53%	-	64,008	2.53%	0.00%
1115A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2072	30 SQ	0	1,512,626	50,562	3.34%	-	50,562	3.34%	0.00%
1115A-10	Embankment Dams and Dykes Additions for Sustainment	2072	20 SQ	0	3,872,881	195,078	5.04%	-	195,078	5.04%	0.00%
1115B-01	Superstructures & Support Bldg - Very Long	2072	100 R4	0	159,913	493	0.31%	(0)	493	0.31%	0.00%
1115B-02	Superstructures & Support Bldg - Long	2072	75 R4	0	5,464	94	1.72%	-	94	1.72%	0.00%
1115B-03	Superstructures & Support Bldg - Medium-Long	2072	55 R3	0	585,029	4,404	0.75%	(374)	4,030	0.69%	-0.06%
1115B-04	Superstructures & Support Bldg - Medium	2072	35 R2	0	2,172,604	56,057	2.58%	-	56,057	2.58%	0.00%
1115B-05	Superstructures & Support Bldg - Medium-Short	2072	25 R3	0	431,712	13,441	3.11%	-	13,441	3.11%	0.00%
1115B-06	Superstructures & Support Bldg - Short	2072	15 R2	0	125,559	10,551	8.40%	-	10,551	8.40%	0.00%
1115D-01	Spillway Substructure	2072	90 R5	0	174,090	1,825	1.05%	-	1,825	1.05%	0.00%
1115D-04	Spillway Superstructure Original construction	2072	70 R5	0	1,570	17	1.09%	-	17	1.09%	0.00%
1115D-05	Spillway Superstructure Subsequent modifications	2072	35 R4	0	3,110,420	84,521	2.72%	-	84,521	2.72%	0.00%
1115E-01	Water Control Support	2072	80 R4	0	2,897,833	27,469	0.95%	(1,748)	25,721	0.89%	-0.06%
1115E-02	Water Control Support Additions for Sustainment	2072	40 R4	0	946,120	16,644	1.76%	-	16,644	1.76%	0.00%
1115F-01	Roads, Grounds and Physical Site Security	2072	50 R3	0	1,600,674	31,572	1.97%	(319)	31,253	1.95%	-0.02%
1115G-01	Turbine and Generator Structural and Embedments	2072	93 S2	0	2,173,794	26,280	1.21%	(1,686)	24,594	1.13%	-0.08%
1115G-02	Turbine Runner - Fixed Blade	2072	66 L4	0	18,860,195	278,064	1.47%	(1,396)	276,668	1.47%	0.00%
1115G-04	Turbine Regulation	2072	55 R4	0	6,613,044	107,517	1.63%	(139)	107,378	1.62%	-0.01%
1115G-05	Turbine Stationary Parts	2072	64 R4	0	3,062,025	43,308	1.41%	(101)	43,207	1.41%	0.00%
1115G-06	Generator Frames and Core	2072	50 S4	0	964,288	8,524	0.88%	-	8,524	0.88%	0.00%
1115G-07	Generator Rotor	2072	65 R4	0	742,369	8,430	1.14%	(135)	8,295	1.12%	-0.02%
1115G-08	Generator Windings	2072	52 S4	0	15,557,578	289,552	1.86%	(123)	289,429	1.86%	0.00%
1115P-01	Generating Station Electrical Systems - High Voltage	2072	63 R3	0	5,581,357	81,375	1.46%	(408)	80,967	1.45%	-0.01%
1115P-02	Generating Station Electrical Systems - Low Voltage	2072	40 R3	0	3,401,939	64,071	1.88%	-	64,071	1.88%	0.00%
1115Q-02	Analog Instrumentation, Control and Protection	2072	49 R4	0	836,547	15,568	1.86%	-	15,568	1.86%	0.00%
1115Q-03	Digital Instrumentation, Control and Protection	2072	25 S2	0	16,896,028	589,335	3.49%	-	589,335	3.49%	0.00%
1115Q-04	Backup Power Systems	2072	25 L2.5	0	2,478,456	94,304	3.80%	-	94,304	3.80%	0.00%
1115Q-05	Cyber and Intelligence Security	2072	10 S3	0	1,193,730	106,334	8.91%	-	106,334	8.91%	0.00%
1115R-01	Mechanical Auxiliary Systems	2072	63 S2	0	9,191,866	145,309	1.58%	(1,448)	143,860	1.57%	-0.01%
1115R-02	Pressure systems	2072	54 R4	0	2,336,689	38,507	1.65%	(34)	38,473	1.65%	0.00%
1115R-03	Tools and test equipment	2072	15 SQ	0	189,090	4,941	2.61%	-	4,941	2.61%	0.00%
	SEVEN SISTERS SUBTOTAL				149,045,288	2,881,474	1.93%	(9,152)	2,872,322	1.93%	0.00%
	Retired Fully Amortized Plant				483,767						
	SEVEN SISTERS TOTAL				**149,529,055**	**2,881,474**	**1.93%**	**(9,152)**	**2,872,322**	**1.92%**	**-0.01%**
SLAVE FALLS											
1120A-01	Concrete Dams, Dykes and Substructures	2072	125 R4	0	19,186,387	282,702	1.47%	-	282,702	1.47%	0.00%
1120A-02	Embankment Dams and Dykes	2072	125 R4	0	6,300,258	92,803	1.47%	-	92,803	1.47%	0.00%
1120B-01	Superstructures & Support Bldg - Very Long	2072	100 R4	0	550,390	8,121	1.48%	-	8,121	1.48%	0.00%
1120B-02	Superstructures & Support Bldg - Long	2072	75 R4	0	13,081	227	1.73%	-	227	1.73%	0.00%
1120B-03	Superstructures & Support Bldg - Medium-Long	2072	55 R3	0	2,774,835	50,946	1.84%	(152)	50,794	1.83%	-0.01%
1120B-04	Superstructures & Support Bldg - Medium	2072	35 R2	0	3,477,845	97,388	2.80%	-	97,388	2.80%	0.00%
1120B-05	Superstructures & Support Bldg - Medium-Short	2072	25 R3	0	2,412,985	100,730	4.17%	-	100,730	4.17%	0.00%
1120B-06	Superstructures & Support Bldg - Short	2072	15 R2	0	115,448	5,749	4.98%	-	5,749	4.98%	0.00%
1120D-01	Spillway Substructure	2072	90 R5	0	656,017	10,530	1.61%	-	10,530	1.61%	0.00%

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Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1120D-02	Spillway Refurbishment	2072	45 R4	0	20,994,575	486,810	2.32%	(100)	486,710	2.32%	0.00%
1120D-03	Spillway Additions for Sustainment	2072	25 SQ	0	1,170,413	58,890	5.03%	-	58,890	5.03%	0.00%
1120D-04	Spillway Superstructure Original construction	2072	70 R5	0	551,841	9,643	1.75%	(22)	9,621	1.74%	-0.01%
1120D-05	Spillway Superstructure Subsequent modifications	2072	35 R4	0	2,677,162	96,583	3.61%	-	96,583	3.61%	0.00%
1120E-01	Water Control Support	2072	80 R4	0	5,089,957	84,719	1.66%	(162)	84,557	1.66%	0.00%
1120F-01	Roads, Grounds and Physical Site Security	2072	50 R3	0	39,223,865	799,779	2.04%	(132)	799,647	2.04%	0.00%
1120G-01	Turbine and Generator Structural and Embedments	2072	93 S2	0	3,612,722	55,368	1.53%	(69)	55,299	1.53%	0.00%
1120G-02	Turbine Runner - Fixed Blade	2072	66 L4	0	1,848,000	29,034	1.57%	-	29,034	1.57%	0.00%
1120G-04	Turbine Regulation	2072	55 R4	0	952,000	16,659	1.75%	-	16,659	1.75%	0.00%
1120G-05	Turbine Stationary Parts	2072	64 R4	0	952,000	14,988	1.57%	-	14,988	1.57%	0.00%
1120G-06	Generator Frames and Core	2072	50 S4	0	1,285,368	24,611	1.91%	-	24,611	1.91%	0.00%
1120G-07	Generator Rotor	2072	65 R4	0	1,285,368	20,081	1.56%	-	20,081	1.56%	0.00%
1120G-08	Generator Windings	2072	52 S4	0	1,492,678	27,711	1.86%	(8)	27,703	1.86%	0.00%
1120P-01	Generating Station Electrical Systems - High Voltage	2072	63 R3	0	13,518,429	233,428	1.73%	(259)	233,169	1.72%	-0.01%
1120P-02	Generating Station Electrical Systems - Low Voltage	2072	40 R3	0	9,000,124	224,544	2.49%	-	224,544	2.49%	0.00%
1120Q-01	Mechanical Instrumentation, Control and Protection	2072	55 R2.5	0	682,301	13,743	2.01%	(87)	13,657	2.00%	-0.01%
1120Q-02	Analog Instrumentation, Control and Protection	2072	49 R4	0	58,000	1,412	2.43%	-	1,412	2.43%	0.00%
1120Q-03	Digital Instrumentation, Control and Protection	2072	25 S2	0	5,214,368	209,725	4.02%	-	209,725	4.02%	0.00%
1120Q-04	Backup Power Systems	2072	25 L2.5	0	1,387,895	60,011	4.32%	-	60,011	4.32%	0.00%
1120Q-05	Cyber and Intelligence Security	2072	10 S3	0	857,986	90,800	10.58%	-	90,800	10.58%	0.00%
1120R-01	Mechanical Auxiliary Systems	2072	63 S2	0	21,214,697	410,486	1.93%	(766)	409,720	1.93%	0.00%
1120R-02	Pressure systems	2072	54 R4	0	759,266	14,119	1.86%	(1)	14,117	1.86%	0.00%
1120R-03	Tools and test equipment	2072	15 SQ	0	236,886	13,617	5.75%	-	13,617	5.75%	0.00%
	SLAVE FALLS TOTAL				**169,553,149**	**3,645,958**	**2.15%**	**(1,758)**	**3,644,200**	**2.15%**	**0.00%**
PINE FALLS											
1125A-01	Concrete Dams, Dykes and Substructures	2092	125 R4	0	4,878,331	40,816	0.84%	-	40,816	0.84%	0.00%
1125A-02	Embankment Dams and Dykes	2092	125 R4	0	3,756,711	40,698	1.08%	-	40,698	1.08%	0.00%
1125A-05	Concrete Dams, Dykes and Substructures Refurbishment	2092	75 R4	0	368,671	5,493	1.49%	-	5,493	1.49%	0.00%
1125A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2092	30 SQ	0	51,326	1,758	3.42%	-	1,758	3.42%	0.00%
1125A-10	Embankment Dams and Dykes Additions for Sustainment	2092	20 SQ	0	5,635,867	374,008	6.64%	-	374,008	6.64%	0.00%
1125B-01	Superstructures & Support Bldg - Very Long	2092	100 R4	0	260,406	2,672	1.03%	-	2,672	1.03%	0.00%
1125B-02	Superstructures & Support Bldg - Long	2092	75 R4	0	3,664	50	1.36%	-	50	1.36%	0.00%
1125B-03	Superstructures & Support Bldg - Medium-Long	2092	55 R3	0	913,695	18,436	2.02%	-	18,436	2.02%	0.00%
1125B-04	Superstructures & Support Bldg - Medium	2092	35 R2	0	2,025,822	57,246	2.83%	-	57,246	2.83%	0.00%
1125B-05	Superstructures & Support Bldg - Medium-Short	2092	25 R3	0	517,940	18,337	3.54%	-	18,337	3.54%	0.00%
1125B-06	Superstructures & Support Bldg - Short	2092	15 R2	0	55,774	2,063	3.70%	-	2,063	3.70%	0.00%
1125D-01	Spillway Substructure	2092	90 R5	0	791,081	9,149	1.16%	-	9,149	1.16%	0.00%
1125D-04	Spillway Superstructure Original construction	2092	70 R5	0	382,950	6,083	1.59%	-	6,083	1.59%	0.00%
1125D-05	Spillway Superstructure Subsequent modifications	2092	35 R4	0	93,376	3,203	3.43%	-	3,203	3.43%	0.00%
1125E-01	Water Control Support	2092	80 R4	0	1,483,593	4,210	0.28%	(264)	3,946	0.27%	-0.01%
1125E-02	Water Control Support Additions for Sustainment	2092	40 R4	0	864,642	8,928	1.03%	-	8,928	1.03%	0.00%
1125F-01	Roads, Grounds and Physical Site Security	2092	50 R3	0	2,296,883	32,258	1.40%	-	32,258	1.40%	0.00%
1125G-01	Turbine and Generator Structural and Embedments	2092	93 S2	0	9,552,498	130,740	1.37%	(2,070)	128,670	1.35%	-0.02%
1125G-02	Turbine Runner - Fixed Blade	2092	66 L4	0	13,733,692	211,613	1.54%	(456)	211,158	1.54%	0.00%
1125G-04	Turbine Regulation	2092	55 R4	0	5,607,135	100,068	1.78%	-	100,068	1.78%	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1125G-05	Turbine Stationary Parts	2092	64 R4	0	5,607,135	86,738	1.55%	(56)	86,682	1.55%	0.00%
1125G-06	Generator Frames and Core	2092	50 S4	0	5,895,795	116,765	1.98%	-	116,765	1.98%	0.00%
1125G-07	Generator Rotor	2092	65 R4	0	6,231,809	96,344	1.55%	(178)	96,166	1.54%	-0.01%
1125G-08	Generator Windings	2092	52 S4	0	7,181,475	135,179	1.88%	-	135,179	1.88%	0.00%
1125P-01	Generating Station Electrical Systems - High Voltage	2092	63 R3	0	8,891,494	144,818	1.63%	(132)	144,686	1.63%	0.00%
1125P-02	Generating Station Electrical Systems - Low Voltage	2092	40 R3	0	6,672,772	157,128	2.35%	-	157,128	2.35%	0.00%
1125Q-01	Mechanical Instrumentation, Control and Protection	2092	55 R2.5	0	488,173	9,014	1.85%	(0)	9,014	1.85%	0.00%
1125Q-02	Analog Instrumentation, Control and Protection	2092	49 R4	0	193,894	3,436	1.77%	-	3,436	1.77%	0.00%
1125Q-03	Digital Instrumentation, Control and Protection	2092	25 S2	0	6,044,075	221,744	3.67%	-	221,744	3.67%	0.00%
1125Q-04	Backup Power Systems	2092	25 L2.5	0	417,453	16,301	3.90%	-	16,301	3.90%	0.00%
1125Q-05	Cyber and Intelligence Security	2092	10 S3	0	1,167,937	111,819	9.57%	-	111,819	9.57%	0.00%
1125R-01	Mechanical Auxiliary Systems	2092	63 S2	0	6,490,249	101,352	1.56%	(454)	100,898	1.55%	-0.01%
1125R-02	Pressure systems	2092	54 R4	0	979,024	18,161	1.85%	-	18,161	1.85%	0.00%
1125R-03	Tools and test equipment	2092	15 SQ	0	56,076	2,910	5.19%	-	2,910	5.19%	0.00%
1125Z-01	Community Development Costs	2092	85 SQ	0	25,592,289	296,978	1.16%	6,383	303,361	1.19%	0.03%
	PINE FALLS SUBTOTAL				135,183,707	2,586,515	1.91%	2,773	2,589,288	1.92%	0.01%
	Retired Fully Amortized Plant				372,058						
	PINE FALLS TOTAL				**135,555,766**	**2,586,515**	**1.91%**	**2,773**	**2,589,288**	**1.91%**	**0.00%**
MCARTHUR FALLS											
1130A-01	Concrete Dams, Dykes and Substructures	2095	125 R4	0	6,761,221	45,976	0.68%	-	45,976	0.68%	0.00%
1130A-02	Embankment Dams and Dykes	2095	125 R4	0	4,516,683	52,712	1.17%	-	52,712	1.17%	0.00%
1130A-06	Embankment Dams and Dykes Refurbishments	2095	40 R4	0	2,511,945	65,149	2.59%	-	65,149	2.59%	0.00%
1130A-10	Embankment Dams and Dykes Additions for Sustainment	2095	20 SQ	0	7,699,218	521,563	6.77%	-	521,563	6.77%	0.00%
1130B-01	Superstructures & Support Bldg - Very Long	2095	100 R4	0	28,263	211	0.75%	-	211	0.75%	0.00%
1130B-03	Superstructures & Support Bldg - Medium-Long	2095	55 R3	0	263,745	3,820	1.45%	-	3,820	1.45%	0.00%
1130B-04	Superstructures & Support Bldg - Medium	2095	35 R2	0	933,470	26,097	2.80%	-	26,097	2.80%	0.00%
1130B-05	Superstructures & Support Bldg - Medium-Short	2095	25 R3	0	1,290,292	52,808	4.09%	-	52,808	4.09%	0.00%
1130B-06	Superstructures & Support Bldg - Short	2095	15 R2	0	62,545	4,196	6.71%	-	4,196	6.71%	0.00%
1130D-01	Spillway Substructure	2095	90 R5	0	1,646,007	19,844	1.21%	-	19,844	1.21%	0.00%
1130D-02	Spillway Refurbishment	2095	45 R4	0	7,060,027	143,532	2.03%	-	143,532	2.03%	0.00%
1130D-03	Spillway Additions for Sustainment	2095	25 SQ	0	2,054,728	82,600	4.02%	-	82,600	4.02%	0.00%
1130D-04	Spillway Superstructure Original construction	2095	70 R5	0	705,431	12,272	1.74%	-	12,272	1.74%	0.00%
1130D-05	Spillway Superstructure Subsequent modifications	2095	35 R4	0	66,065	1,909	2.89%	-	1,909	2.89%	0.00%
1130E-01	Water Control Support	2095	80 R4	0	4,561,625	50,564	1.11%	(45)	50,519	1.11%	0.00%
1130E-02	Water Control Support Additions for Sustainment	2095	40 R4	0	245,726	3,603	1.47%	-	3,603	1.47%	0.00%
1130F-01	Roads, Grounds and Physical Site Security	2095	50 R3	0	1,168,477	22,822	1.95%	-	22,822	1.95%	0.00%
1130G-01	Turbine and Generator Structural and Embedments	2095	93 S2	0	1,450,437	395	0.03%	(0)	395	0.03%	0.00%
1130G-02	Turbine Runner - Fixed Blade	2095	66 L4	0	1,024,281	4,696	0.46%	(45)	4,651	0.45%	-0.01%
1130G-04	Turbine Regulation	2095	55 R4	0	492,349	-	0.00%	-	-	0.00%	0.00%
1130G-05	Turbine Stationary Parts	2095	64 R4	0	469,977	-	0.00%	-	-	0.00%	0.00%
1130G-06	Generator Frames and Core	2095	50 S4	0	538,128	-	0.00%	-	-	0.00%	0.00%
1130G-07	Generator Rotor	2095	65 R4	0	538,128	-	0.00%	-	-	0.00%	0.00%
1130G-08	Generator Windings	2095	52 S4	0	538,128	-	0.00%	-	-	0.00%	0.00%
1130P-01	Generating Station Electrical Systems - High Voltage	2095	63 R3	0	778,135	7,989	1.03%	(19)	7,970	1.02%	-0.01%
1130P-02	Generating Station Electrical Systems - Low Voltage	2095	40 R3	0	4,042,569	78,333	1.94%	-	78,333	1.94%	0.00%
1130Q-01	Mechanical Instrumentation, Control and Protection	2095	55 R2.5	0	1,197	9	0.77%	-	9	0.77%	0.00%

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Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1130Q-02	Analog Instrumentation, Control and Protection	2095	49 R4	0	752,542	12,676	1.68%	-	12,676	1.68%	0.00%
1130Q-03	Digital Instrumentation, Control and Protection	2095	25 S2	0	1,948,880	69,567	3.57%	-	69,567	3.57%	0.00%
1130Q-04	Backup Power Systems	2095	25 L2.5	0	1,553,629	61,595	3.96%	-	61,595	3.96%	0.00%
1130Q-05	Cyber and Intelligence Security	2095	10 S3	0	978,675	98,524	10.07%	-	98,524	10.07%	0.00%
1130R-01	Mechanical Auxiliary Systems	2095	63 S2	0	3,239,595	49,580	1.53%	(160)	49,420	1.53%	0.00%
1130R-02	Pressure systems	2095	54 R4	0	1,765,465	32,531	1.84%	-	32,531	1.84%	0.00%
1130R-03	Tools and test equipment	2095	15 SQ	0	-	-	0.00%	-	-	0.00%	0.00%
	MCARTHUR FALLS SUBTOTAL				61,687,583	1,525,572	2.47%	(270)	1,525,302	2.47%	0.00%
	Retired Fully amortized Plant				105,966						
	MCARTHUR FALLS TOTAL				**61,793,549**	**1,525,572**	**2.47%**	**(270)**	**1,525,302**	**2.47%**	**0.00%**
KELSEY											
1135A-01	Concrete Dams, Dykes and Substructures	2101	125 R4	0	22,968,751	225,205	0.98%	(102)	225,103	0.98%	0.00%
1135A-02	Embankment Dams and Dykes	2101	125 R4	0	3,650,661	45,159	1.24%	-	45,159	1.24%	0.00%
1135A-05	Concrete Dams, Dykes and Substructures Refurbishment	2101	75 R4	0	47,641,125	658,820	1.38%	(96)	658,723	1.38%	0.00%
1135A-06	Embankment Dams and Dykes Refurbishments	2101	40 R4	0	218,657	9,412	4.30%	-	9,412	4.30%	0.00%
1135A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2101	30 SQ	0	189,568	8,488	4.48%	-	8,488	4.48%	0.00%
1135A-10	Embankment Dams and Dykes Additions for Sustainment	2101	20 SQ	0	236,083	24,188	10.25%	-	24,188	10.25%	0.00%
1135B-01	Superstructures & Support Bldg - Very Long	2101	100 R4	0	300,567	3,803	1.27%	-	3,803	1.27%	0.00%
1135B-02	Superstructures & Support Bldg - Long	2101	75 R4	0	1,817,268	31,557	1.74%	(2)	31,555	1.74%	0.00%
1135B-03	Superstructures & Support Bldg - Medium-Long	2101	55 R3	0	4,280,908	94,779	2.21%	-	94,779	2.21%	0.00%
1135B-04	Superstructures & Support Bldg - Medium	2101	35 R2	0	4,201,543	156,531	3.73%	-	156,531	3.73%	0.00%
1135B-05	Superstructures & Support Bldg - Medium-Short	2101	25 R3	0	2,176,842	134,768	6.19%	-	134,768	6.19%	0.00%
1135B-06	Superstructures & Support Bldg - Short	2101	15 R2	0	914,481	54,264	5.93%	-	54,264	5.93%	0.00%
1135D-01	Spillway Substructure	2101	90 R5	0	1,199,388	21,717	1.81%	-	21,717	1.81%	0.00%
1135D-02	Spillway Refurbishment	2101	45 R4	0	2,393,841	72,112	3.01%	-	72,112	3.01%	0.00%
1135D-03	Spillway Additions for Sustainment	2101	25 SQ	0	1,864,997	90,298	4.84%	-	90,298	4.84%	0.00%
1135D-04	Spillway Superstructure Original construction	2101	70 R5	0	4,132,541	142,296	3.44%	-	142,296	3.44%	0.00%
1135E-01	Water Control Support	2101	80 R4	0	3,336,369	60,577	1.82%	-	60,577	1.82%	0.00%
1135E-02	Water Control Support Additions for Sustainment	2101	40 R4	0	40,679,866	1,078,956	2.65%	-	1,078,956	2.65%	0.00%
1135F-01	Roads, Grounds and Physical Site Security	2101	50 R3	0	14,883,858	304,781	2.05%	-	304,781	2.05%	0.00%
1135G-01	Turbine and Generator Structural and Embedments	2101	93 S2	0	13,230,175	167,275	1.26%	(1,337)	165,938	1.25%	-0.01%
1135G-02	Turbine Runner - Fixed Blade	2101	66 L4	0	60,137,063	930,318	1.55%	(126)	930,192	1.55%	0.00%
1135G-04	Turbine Regulation	2101	55 R4	0	22,351,023	414,215	1.85%	-	414,215	1.85%	0.00%
1135G-05	Turbine Stationary Parts	2101	64 R4	0	22,191,717	352,383	1.59%	-	352,383	1.59%	0.00%
1135G-06	Generator Frames and Core	2101	50 S4	0	7,736,610	158,600	2.05%	-	158,600	2.05%	0.00%
1135G-07	Generator Rotor	2101	65 R4	0	212,444	4,332	2.04%	-	4,332	2.04%	0.00%
1135G-08	Generator Windings	2101	52 S4	0	29,801,399	585,434	1.96%	-	585,434	1.96%	0.00%
1135P-01	Generating Station Electrical Systems - High Voltage	2101	63 R3	0	40,328,273	650,676	1.61%	(4)	650,673	1.61%	0.00%
1135P-02	Generating Station Electrical Systems - Low Voltage	2101	40 R3	0	2,444,776	62,535	2.56%	-	62,535	2.56%	0.00%
1135Q-01	Mechanical Instrumentation, Control and Protection	2101	55 R2.5	0	1,795,642	31,505	1.75%	-	31,505	1.75%	0.00%
1135Q-02	Analog Instrumentation, Control and Protection	2101	49 R4	0	15,414,372	304,930	1.98%	-	304,930	1.98%	0.00%
1135Q-03	Digital Instrumentation, Control and Protection	2101	25 S2	0	3,815,381	106,370	2.79%	-	106,370	2.79%	0.00%
1135Q-04	Backup Power Systems	2101	25 L2.5	0	333,498	10,818	3.24%	-	10,818	3.24%	0.00%
1135Q-05	Cyber and Intelligence Security	2101	10 S3	0	2,015,380	178,304	8.85%	-	178,304	8.85%	0.00%
1135R-01	Mechanical Auxiliary Systems	2101	63 S2	0	13,319,515	215,523	1.62%	(252)	215,271	1.62%	0.00%

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Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1135R-02	Pressure systems	2101	54 R4	0	1,827,544	32,571	1.78%	-	32,571	1.78%	0.00%
1135R-03	Tools and test equipment	2101	15 SQ	0	-	-	0.00%	-	-	0.00%	0.00%
	KELSEY SUBTOTAL				394,042,124	7,423,501	1.88%	(1,919)	7,421,582	1.88%	0.00%
	Retired Fully amortized Plant				764,884						
	KELSEY TOTAL				**394,807,008**	**7,423,501**	**1.88%**	**(1,919)**	**7,421,582**	**1.88%**	**0.00%**
GRAND RAPIDS											
1140A-01	Concrete Dams, Dykes and Substructures	2091	125 R4	0	20,728,240	167,936	0.81%	(7)	167,929	0.81%	0.00%
1140A-02	Embankment Dams and Dykes	2091	80 R4	0	40,794,687	388,833	0.95%	(54)	388,778	0.95%	0.00%
1140A-03	Timber Dams and Dykes	2091	40 R4	0	250,000	22,374	8.95%	-	22,374	8.95%	0.00%
1140A-05	Concrete Dams, Dykes and Substructures Refurbishment	2091	75 R4	0	74,274	964	1.30%	(0)	964	1.30%	0.00%
1140A-06	Embankment Dams and Dykes Refurbishments	2091	40 R4	0	795,242	24,501	3.08%	-	24,501	3.08%	0.00%
1140A-10	Embankment Dams and Dykes Additions for Sustainment	2091	20 SQ	0	13,018,371	759,889	5.84%	-	759,889	5.84%	0.00%
1140B-01	Superstructures & Support Bldg - Very Long	2091	100 R4	0	234,984	2,142	0.91%	(0)	2,142	0.91%	0.00%
1140B-02	Superstructures & Support Bldg - Long	2091	75 R4	0	2,245,776	33,901	1.51%	(10)	33,891	1.51%	0.00%
1140B-03	Superstructures & Support Bldg - Medium-Long	2091	55 R3	0	3,559,761	65,171	1.83%	-	65,171	1.83%	0.00%
1140B-04	Superstructures & Support Bldg - Medium	2091	35 R2	0	8,224,773	230,050	2.80%	-	230,050	2.80%	0.00%
1140B-05	Superstructures & Support Bldg - Medium-Short	2091	25 R3	0	6,536,304	267,785	4.10%	-	267,785	4.10%	0.00%
1140B-06	Superstructures & Support Bldg - Short	2091	15 R2	0	2,275,210	129,500	5.69%	-	129,500	5.69%	0.00%
1140D-01	Spillway Substructure	2091	90 R5	0	4,007,473	38,501	0.96%	-	38,501	0.96%	0.00%
1140D-02	Spillway Refurbishment	2091	45 R4	0	143,426	3,146	2.19%	-	3,146	2.19%	0.00%
1140D-04	Spillway Superstructure Original construction	2091	70 R5	0	1,300,861	14,349	1.10%	-	14,349	1.10%	0.00%
1140E-01	Water Control Support	2091	80 R4	0	12,138,833	16,161	0.13%	(22)	16,140	0.13%	0.00%
1140E-02	Water Control Support Additions for Sustainment	2091	40 R4	0	2,587,832	31,318	1.21%	-	31,318	1.21%	0.00%
1140F-01	Roads, Grounds and Physical Site Security	2091	50 R3	0	3,472,758	48,555	1.40%	-	48,555	1.40%	0.00%
1140G-01	Turbine and Generator Structural and Embedments	2091	93 S2	0	2,976,028	36,535	1.23%	(2)	36,534	1.23%	0.00%
1140G-03	Turbine Runner - Variable Blade	2091	40 R5	0	50,718,877	1,401,886	2.76%	-	1,401,886	2.76%	0.00%
1140G-04	Turbine Regulation	2091	55 R4	0	9,077,379	177,645	1.96%	-	177,645	1.96%	0.00%
1140G-05	Turbine Stationary Parts	2091	64 R4	0	9,077,379	150,643	1.66%	(54)	150,589	1.66%	0.00%
1140G-06	Generator Frames and Core	2091	50 S4	0	5,321,514	117,982	2.22%	-	117,982	2.22%	0.00%
1140G-07	Generator Rotor	2091	65 R4	0	5,321,514	87,747	1.65%	-	87,747	1.65%	0.00%
1140G-08	Generator Windings	2091	52 S4	0	19,802,293	407,235	2.06%	-	407,235	2.06%	0.00%
1140L-01	GS Licensing	2091	50 SQ	0	78,917,675	1,571,094	1.99%	-	1,571,094	1.99%	0.00%
1140P-01	Generating Station Electrical Systems - High Voltage	2091	63 R3	0	28,815,269	472,685	1.64%	(987)	471,698	1.64%	0.00%
1140P-02	Generating Station Electrical Systems - Low Voltage	2091	40 R3	0	1,967,372	47,278	2.40%	-	47,278	2.40%	0.00%
1140Q-01	Mechanical Instrumentation, Control and Protection	2091	55 R2.5	0	473,428	8,768	1.85%	(6)	8,762	1.85%	0.00%
1140Q-02	Analog Instrumentation, Control and Protection	2091	49 R4	0	4,353,930	66,435	1.53%	-	66,435	1.53%	0.00%
1140Q-03	Digital Instrumentation, Control and Protection	2091	25 S2	0	13,903,831	561,641	4.04%	-	561,641	4.04%	0.00%
1140Q-04	Backup Power Systems	2091	25 L2.5	0	2,018,902	80,057	3.97%	-	80,057	3.97%	0.00%
1140Q-05	Cyber and Intelligence Security	2091	10 S3	0	2,151,549	166,751	7.75%	-	166,751	7.75%	0.00%
1140R-01	Mechanical Auxiliary Systems	2091	63 S2	0	14,790,326	235,769	1.59%	(459)	235,309	1.59%	0.00%
1140R-02	Pressure systems	2091	54 R4	0	3,078,064	60,046	1.95%	-	60,046	1.95%	0.00%
1140R-03	Tools and test equipment	2091	15 SQ	0	157,044	6,597	4.20%	-	6,597	4.20%	0.00%
1140Z-01	Community Development Costs	2091	85 SQ	0	187,821,533	2,105,130	1.12%	123,971	2,229,101	1.19%	0.07%
	GRAND RAPIDS SUBTOTAL				563,132,714	10,006,998	1.78%	122,370	10,129,369	1.80%	0.02%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Retired Fully amortized Plant				345,158						
	GRAND RAPIDS TOTAL				**563,477,872**	**10,006,998**	**1.78%**	**122,370**	**10,129,369**	**1.80%**	**0.02%**
KETTLE											
1145A-01	Concrete Dams, Dykes and Substructures	2111	125 R4	0	125,214,115	1,029,044	0.82%	-	1,029,044	0.82%	0.00%
1145A-02	Embankment Dams and Dykes	2111	125 R4	0	37,278,583	278,488	0.75%	-	278,488	0.75%	0.00%
1145A-05	Concrete Dams, Dykes and Substructures Refurbishment	2111	75 R4	0	262,515	2,723	1.04%	-	2,723	1.04%	0.00%
1145A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2111	30 SQ	0	107,616	3,587	3.33%	-	3,587	3.33%	0.00%
1145A-10	Embankment Dams and Dykes Additions for Sustainment	2111	20 SQ	0	290,090	14,504	5.00%	-	14,504	5.00%	0.00%
1145B-01	Superstructures & Support Bldg - Very Long	2111	100 R4	0	2,941,485	29,424	1.00%	-	29,424	1.00%	0.00%
1145B-02	Superstructures & Support Bldg - Long	2111	75 R4	0	713,110	10,048	1.41%	-	10,048	1.41%	0.00%
1145B-03	Superstructures & Support Bldg - Medium-Long	2111	55 R3	0	12,853,834	230,184	1.79%	-	230,184	1.79%	0.00%
1145B-04	Superstructures & Support Bldg - Medium	2111	35 R2	0	9,192,310	259,562	2.82%	-	259,562	2.82%	0.00%
1145B-05	Superstructures & Support Bldg - Medium-Short	2111	25 R3	0	7,538,638	301,641	4.00%	-	301,641	4.00%	0.00%
1145B-06	Superstructures & Support Bldg - Short	2111	15 R2	0	387,465	28,746	7.42%	-	28,746	7.42%	0.00%
1145D-01	Spillway Substructure	2111	90 R5	0	14,733,141	144,831	0.98%	-	144,831	0.98%	0.00%
1145D-04	Spillway Superstructure Original construction	2111	70 R5	0	6,314,203	71,428	1.13%	-	71,428	1.13%	0.00%
1145E-01	Water Control Support	2111	80 R4	0	17,318,091	71,219	0.41%	-	71,219	0.41%	0.00%
1145E-02	Water Control Support Additions for Sustainment	2111	40 R4	0	634,458	14,507	2.29%	-	14,507	2.29%	0.00%
1145F-01	Roads, Grounds and Physical Site Security	2111	50 R3	0	1,297,742	25,655	1.98%	-	25,655	1.98%	0.00%
1145G-01	Turbine and Generator Structural and Embedments	2111	93 S2	0	17,325,966	171,064	0.99%	-	171,064	0.99%	0.00%
1145G-02	Turbine Runner - Fixed Blade	2111	66 L4	0	9,667,828	119,313	1.23%	-	119,313	1.23%	0.00%
1145G-04	Turbine Regulation	2111	55 R4	0	7,726,679	124,196	1.61%	-	124,196	1.61%	0.00%
1145G-05	Turbine Stationary Parts	2111	64 R4	0	5,111,366	64,988	1.27%	-	64,988	1.27%	0.00%
1145G-06	Generator Frames and Core	2111	50 S4	0	42,916,903	844,217	1.97%	-	844,217	1.97%	0.00%
1145G-07	Generator Rotor	2111	65 R4	0	7,658,138	95,545	1.25%	-	95,545	1.25%	0.00%
1145G-08	Generator Windings	2111	52 S4	0	33,972,786	635,323	1.87%	-	635,323	1.87%	0.00%
1145P-01	Generating Station Electrical Systems - High Voltage	2111	63 R3	0	47,690,692	741,831	1.56%	-	741,831	1.56%	0.00%
1145P-02	Generating Station Electrical Systems - Low Voltage	2111	40 R3	0	5,205,752	88,807	1.71%	-	88,807	1.71%	0.00%
1145Q-02	Analog Instrumentation, Control and Protection	2111	49 R4	0	13,564,232	264,706	1.95%	-	264,706	1.95%	0.00%
1145Q-03	Digital Instrumentation, Control and Protection	2111	25 S2	0	19,250,891	662,823	3.44%	-	662,823	3.44%	0.00%
1145Q-04	Backup Power Systems	2111	25 L2.5	0	348,030	12,112	3.48%	-	12,112	3.48%	0.00%
1145Q-05	Cyber and Intelligence Security	2111	10 S3	0	2,524,363	216,316	8.57%	-	216,316	8.57%	0.00%
1145R-01	Mechanical Auxiliary Systems	2111	63 S2	0	40,464,517	581,472	1.44%	(0)	581,472	1.44%	0.00%
1145R-02	Pressure systems	2111	54 R4	0	1,904,712	34,324	1.80%	-	34,324	1.80%	0.00%
1145R-03	Tools and test equipment	2111	15 SQ	0	116,369	3,851	3.31%	-	3,851	3.31%	0.00%
	KETTLE SUBTOTAL				492,526,621	7,176,480	1.46%	(0)	7,176,480	1.46%	0.00%
	Retired Fully Amortized plant				906,651						
	KETTLE TOTAL				**493,433,272**	**7,176,480**	**1.46%**	**(0)**	**7,176,480**	**1.45%**	**-0.01%**
LAURIE RIVER											
1150A-05	Concrete Dams, Dykes and Substructures Refurbishment	2050	75 R4	0	2,611,923	39,673	1.52%	-	39,673	1.52%	0.00%
1150A-06	Embankment Dams and Dykes Refurbishments	2050	40 R4	0	316,188	12,407	3.92%	-	12,407	3.92%	0.00%
1150B-02	Superstructures & Support Bldg - Long	2050	75 R4	0	103,216	1,969	1.91%	-	1,969	1.91%	0.00%
1150B-03	Superstructures & Support Bldg - Medium-Long	2050	55 R3	0	2,489,133	54,190	2.18%	(88)	54,102	2.17%	-0.01%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1150B-04	Superstructures & Support Bldg - Medium	2050	35 R2	0	1,787,420	47,695	2.67%	(106)	47,589	2.66%	-0.01%
1150B-05	Superstructures & Support Bldg - Medium-Short	2050	25 R3	0	764,258	24,687	3.23%	-	24,687	3.23%	0.00%
1150B-06	Superstructures & Support Bldg - Short	2050	15 R2	0	310,194	14,483	4.67%	-	14,483	4.67%	0.00%
1150D-02	Spillway Refurbishment	2050	45 R4	0	870,000	18,346	2.11%	-	18,346	2.11%	0.00%
1150E-01	Water Control Support	2050	80 R4	0	345,135	5,790	1.68%	(7)	5,782	1.68%	0.00%
1150E-02	Water Control Support Additions for Sustainment	2050	40 R4	0	321,702	7,433	2.31%	-	7,433	2.31%	0.00%
1150F-01	Roads, Grounds and Physical Site Security	2050	50 R3	0	1,588,097	31,927	2.01%	(474)	31,453	1.98%	-0.03%
1150G-01	Turbine and Generator Structural and Embedments	2050	93 S2	0	257,898	3,266	1.27%	-	3,266	1.27%	0.00%
1150G-06	Generator Frames and Core	2050	50 S4	0	257,898	3,186	1.24%	-	3,186	1.24%	0.00%
1150G-07	Generator Rotor	2050	65 R4	0	257,898	3,275	1.27%	-	3,275	1.27%	0.00%
1150G-08	Generator Windings	2050	52 S4	0	3,415,062	70,635	2.07%	(184)	70,451	2.06%	-0.01%
1150P-02	Generating Station Electrical Systems - Low Voltage	2050	40 R3	0	1,788,265	39,605	2.21%	(59)	39,546	2.21%	0.00%
1150Q-01	Mechanical Instrumentation, Control and Protection	2050	55 R2.5	0	81,827	1,362	1.66%	-	1,362	1.66%	0.00%
1150Q-02	Analog Instrumentation, Control and Protection	2050	49 R4	0	342,413	4,992	1.46%	(135)	4,857	1.42%	-0.04%
1150Q-03	Digital Instrumentation, Control and Protection	2050	25 S2	0	853,910	28,478	3.34%	(1)	28,477	3.33%	-0.01%
1150Q-04	Backup Power Systems	2050	25 L2.5	0	32,263	506	1.57%	-	506	1.57%	0.00%
1150R-01	Mechanical Auxiliary Systems	2050	63 S2	0	1,001,405	14,877	1.49%	(62)	14,815	1.48%	-0.01%
	LAURIE RIVER TOTAL				**19,796,107**	**428,783**	**2.17%**	**(1,117)**	**427,666**	**2.16%**	**-0.01%**
JENPEG											
1155A-01	Concrete Dams, Dykes and Substructures	2118	125 R4	0	80,606,373	628,730	0.78%	(0)	628,730	0.78%	0.00%
1155A-02	Embankment Dams and Dykes	2118	125 R4	0	8,015,475	67,730	0.84%	(296)	67,434	0.84%	0.00%
1155A-06	Embankment Dams and Dykes Refurbishments	2118	40 R4	0	1,323,364	32,770	2.48%	-	32,770	2.48%	0.00%
1155A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2118	30 SQ	0	31,576	1,009	3.20%	-	1,009	3.20%	0.00%
1155A-10	Embankment Dams and Dykes Additions for Sustainment	2118	20 SQ	0	1,672,408	78,990	4.72%	-	78,990	4.72%	0.00%
1155B-01	Superstructures & Support Bldg - Very Long	2118	100 R4	0	124,647	1,113	0.89%	-	1,113	0.89%	0.00%
1155B-02	Superstructures & Support Bldg - Long	2118	75 R4	0	1,728,345	23,689	1.37%	-	23,689	1.37%	0.00%
1155B-03	Superstructures & Support Bldg - Medium-Long	2118	55 R3	0	3,688,132	68,679	1.86%	-	68,679	1.86%	0.00%
1155B-04	Superstructures & Support Bldg - Medium	2118	35 R2	0	8,185,233	260,230	3.18%	-	260,230	3.18%	0.00%
1155B-05	Superstructures & Support Bldg - Medium-Short	2118	25 R3	0	5,197,102	219,822	4.23%	-	219,822	4.23%	0.00%
1155B-06	Superstructures & Support Bldg - Short	2118	15 R2	0	1,374,038	97,799	7.12%	-	97,799	7.12%	0.00%
1155D-01	Spillway Substructure	2118	90 R5	0	14,923,394	133,051	0.89%	-	133,051	0.89%	0.00%
1155D-04	Spillway Superstructure Original construction	2118	70 R5	0	4,429,185	57,612	1.30%	-	57,612	1.30%	0.00%
1155D-05	Spillway Superstructure Subsequent modifications	2118	35 R4	0	71,755	1,709	2.38%	-	1,709	2.38%	0.00%
1155E-01	Water Control Support	2118	80 R4	0	13,032,817	83,216	0.64%	(0)	83,216	0.64%	0.00%
1155F-01	Roads, Grounds and Physical Site Security	2118	50 R3	0	4,639,534	87,636	1.89%	-	87,636	1.89%	0.00%
1155G-01	Turbine and Generator Structural and Embedments	2118	93 S2	0	19,171,002	199,170	1.04%	-	199,170	1.04%	0.00%
1155G-03	Turbine Runner - Variable Blade	2118	40 R5	0	11,642,687	251,029	2.16%	-	251,029	2.16%	0.00%
1155G-04	Turbine Regulation	2118	55 R4	0	13,638,537	243,792	1.79%	-	243,792	1.79%	0.00%
1155G-05	Turbine Stationary Parts	2118	64 R4	0	19,772,483	304,030	1.54%	-	304,030	1.54%	0.00%
1155G-06	Generator Frames and Core	2118	50 S4	0	10,671,117	189,071	1.77%	-	189,071	1.77%	0.00%
1155G-07	Generator Rotor	2118	65 R4	0	10,424,603	150,631	1.44%	-	150,631	1.44%	0.00%
1155G-08	Generator Windings	2118	52 S4	0	12,993,253	228,897	1.76%	-	228,897	1.76%	0.00%
1155P-01	Generating Station Electrical Systems - High Voltage	2118	63 R3	0	16,652,278	244,552	1.47%	-	244,552	1.47%	0.00%
1155P-02	Generating Station Electrical Systems - Low Voltage	2118	40 R3	0	13,355,129	259,634	1.94%	-	259,634	1.94%	0.00%
1155Q-01	Mechanical Instrumentation, Control and Protection	2118	55 R2.5	0	3,912	9	0.24%	-	9	0.24%	0.00%

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Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1155Q-02	Analog Instrumentation, Control and Protection	2118	49 R4	0	2,680,166	48,655	1.82%	-	48,655	1.82%	0.00%
1155Q-03	Digital Instrumentation, Control and Protection	2118	25 S2	0	8,714,738	333,334	3.82%	-	333,334	3.82%	0.00%
1155Q-04	Backup Power Systems	2118	25 L2.5	0	30,806	780	2.53%	-	780	2.53%	0.00%
1155Q-05	Cyber and Intelligence Security	2118	10 S3	0	1,984,176	170,027	8.57%	-	170,027	8.57%	0.00%
1155R-01	Mechanical Auxiliary Systems	2118	63 S2	0	15,455,496	209,740	1.36%	-	209,740	1.36%	0.00%
1155R-02	Pressure systems	2118	54 R4	0	511,999	4,251	0.83%	-	4,251	0.83%	0.00%
1155R-03	Tools and test equipment	2118	15 SQ	0	77,878	4,545	5.84%	-	4,545	5.84%	0.00%
	JENPEG SUBTOTAL				306,823,634	4,685,935	1.53%	(296)	4,685,639	1.53%	0.00%
	Retired Fully Amortized Plant				213,912						
	JENPEG TOTAL				**307,037,547**	**4,685,935**	**1.53%**	**(296)**	**4,685,639**	**1.53%**	**0.00%**
LAKE WINNIPEG REGULATION											
1160A-01	Concrete Dams, Dykes and Substructures		125 R4	0	1,244,420	8,932	0.72%	-	8,932	0.72%	0.00%
1160A-02	Embankment Dams and Dykes		125 R4	0	115,539,484	849,251	0.74%	-	849,251	0.74%	0.00%
1160F-01	Roads, Grounds and Physical Site Security		50 R3	0	960,604	15,147	1.58%	-	15,147	1.58%	0.00%
1160L-01	GS Licensing		50 SQ	0	500,000	10,072	2.01%	-	10,072	2.01%	0.00%
1160Q-03	Digital Instrumentation, Control and Protection		25 S2	0	7,316	293	4.00%	(54)	239	3.27%	-0.73%
1160Z-01	Community Development Costs		85 SQ	0	500,269,212	5,787,012	1.16%	-	5,787,012	1.16%	0.00%
	LAKE WINNIPEG REGULATION TOTAL				**618,521,037**	**6,670,707**	**1.08%**	**(54)**	**6,670,654**	**1.08%**	**0.00%**
CHURCHILL RIVER DIVERSION											
1165A-01	Concrete Dams, Dykes and Substructures		125 R4	0	64,751,530	421,772	0.65%	-	421,772	0.65%	0.00%
1165A-02	Embankment Dams and Dykes		125 R4	0	97,713,432	813,518	0.83%	-	813,518	0.83%	0.00%
1165A-04	Weirs		50 R4	0	28,741,825	605,625	2.11%	-	605,625	2.11%	0.00%
1165A-06	Embankment Dams and Dykes Refurbishments		40 R4	0	90,770	2,567	2.83%	-	2,567	2.83%	0.00%
1165A-08	Weirs Refurbishment		25 R4	0	1,242,108	55,894	4.50%	-	55,894	4.50%	0.00%
1165B-01	Superstructures & Support Bldg - Very Long		100 R4	0	54,849	377	0.69%	-	377	0.69%	0.00%
1165B-02	Superstructures & Support Bldg - Long		75 R4	0	30,626	414	1.35%	-	414	1.35%	0.00%
1165B-03	Superstructures & Support Bldg - Medium-Long		55 R3	0	581,467	8,632	1.48%	-	8,632	1.48%	0.00%
1165B-04	Superstructures & Support Bldg - Medium		35 R2	0	543,368	12,589	2.32%	-	12,589	2.32%	0.00%
1165B-05	Superstructures & Support Bldg - Medium-Short		25 R3	0	164,288	6,119	3.72%	-	6,119	3.72%	0.00%
1165B-06	Superstructures & Support Bldg - Short		15 R2	0	38,137	2,306	6.05%	-	2,306	6.05%	0.00%
1165D-01	Spillway Substructure		90 R5	0	2,776,405	18,941	0.68%	-	18,941	0.68%	0.00%
1165D-04	Spillway Superstructure Original construction		70 R5	0	502,596	1,698	0.34%	-	1,698	0.34%	0.00%
1165E-01	Water Control Support		80 R4	0	13,418,792	78,414	0.58%	-	78,414	0.58%	0.00%
1165E-02	Water Control Support Additions for Sustainment		40 R4	0	508,422	12,798	2.52%	-	12,798	2.52%	0.00%
1165F-01	Roads, Grounds and Physical Site Security		50 R3	0	11,835,084	214,834	1.82%	-	214,834	1.82%	0.00%
1165P-02	Generating Station Electrical Systems - Low Voltage		40 R3	0	1,668,538	47,379	2.84%	-	47,379	2.84%	0.00%
1165Q-01	Mechanical Instrumentation, Control and Protection		55 R2.5	0	3,246,267	58,888	1.81%	-	58,888	1.81%	0.00%
1165Q-02	Analog Instrumentation, Control and Protection		49 R4	0	2,844,528	41,361	1.45%	-	41,361	1.45%	0.00%
1165Q-03	Digital Instrumentation, Control and Protection		25 S2	0	178,987	6,662	3.72%	-	6,662	3.72%	0.00%
1165Q-04	Backup Power Systems		25 L2.5	0	17,397	662	3.81%	-	662	3.81%	0.00%
1165R-01	Mechanical Auxiliary Systems		63 S2	0	5,248,652	38,991	0.74%	-	38,991	0.74%	0.00%
1165R-03	Tools and test equipment		15 SQ	0	8	1	6.67%	-	1	6.67%	0.00%
1165Z-01	Community Development Costs		90 SQ	0	393,313,694	4,240,246	1.08%	-	4,240,246	1.08%	0.00%
	CHURCHILL RIVER DIVERSION SUBTOTAL				629,511,771	6,690,688	1.06%	-	6,690,688	1.06%	0.00%
	Retired Fully Amortized Plant				119,658						
	CHURCHILL RIVER DIVERSION TOTAL				**629,631,429**	**6,690,688**	**1.06%**	**-**	**6,690,688**	**1.06%**	**0.00%**

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For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
LONG SPRUCE											
1170A-01	Concrete Dams, Dykes and Substructures	2118	125 R4	0	155,292,831	1,270,116	0.82%	(0)	1,270,115	0.82%	0.00%
1170A-02	Embankment Dams and Dykes	2118	125 R4	0	36,035,091	289,882	0.80%	(1)	289,881	0.80%	0.00%
1170A-06	Embankment Dams and Dykes Refurbishments	2118	40 R4	0	2,954,291	69,990	2.37%	-	69,990	2.37%	0.00%
1170A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	2118	30 SQ	0	225,042	7,489	3.33%	-	7,489	3.33%	0.00%
1170A-10	Embankment Dams and Dykes Additions for Sustainment	2118	20 SQ	0	576,630	20,666	3.58%	-	20,666	3.58%	0.00%
1170B-01	Superstructures & Support Bldg - Very Long	2118	100 R4	0	1,285,948	12,779	0.99%	-	12,779	0.99%	0.00%
1170B-03	Superstructures & Support Bldg - Medium-Long	2118	55 R3	0	4,579,922	81,914	1.79%	-	81,914	1.79%	0.00%
1170B-04	Superstructures & Support Bldg - Medium	2118	35 R2	0	3,802,445	102,780	2.70%	-	102,780	2.70%	0.00%
1170B-05	Superstructures & Support Bldg - Medium-Short	2118	25 R3	0	4,967,958	196,484	3.96%	-	196,484	3.96%	0.00%
1170B-06	Superstructures & Support Bldg - Short	2118	15 R2	0	83,815	4,494	5.36%	-	4,494	5.36%	0.00%
1170D-01	Spillway Substructure	2118	90 R5	0	29,259,213	310,224	1.06%	-	310,224	1.06%	0.00%
1170D-04	Spillway Superstructure Original construction	2118	70 R5	0	12,510,403	165,080	1.32%	-	165,080	1.32%	0.00%
1170D-05	Spillway Superstructure Subsequent modifications	2118	35 R4	0	498,975	11,864	2.38%	-	11,864	2.38%	0.00%
1170E-02	Water Control Support Additions for Sustainment	2118	40 R4	0	41,781	719	1.72%	-	719	1.72%	0.00%
1170F-01	Roads, Grounds and Physical Site Security	2118	50 R3	0	4,435,120	84,141	1.90%	-	84,141	1.90%	0.00%
1170G-01	Turbine and Generator Structural and Embedments	2118	93 S2	0	39,883,069	387,660	0.97%	-	387,660	0.97%	0.00%
1170G-02	Turbine Runner - Fixed Blade	2118	66 L4	0	20,711,550	252,822	1.22%	-	252,822	1.22%	0.00%
1170G-04	Turbine Regulation	2118	55 R4	0	10,912,969	142,588	1.31%	-	142,588	1.31%	0.00%
1170G-05	Turbine Stationary Parts	2118	64 R4	0	10,738,905	134,099	1.25%	-	134,099	1.25%	0.00%
1170G-06	Generator Frames and Core	2118	50 S4	0	19,246,716	217,335	1.13%	-	217,335	1.13%	0.00%
1170G-07	Generator Rotor	2118	65 R4	0	19,246,716	237,680	1.23%	-	237,680	1.23%	0.00%
1170G-08	Generator Windings	2118	52 S4	0	22,246,298	294,695	1.32%	-	294,695	1.32%	0.00%
1170P-01	Generating Station Electrical Systems - High Voltage	2118	63 R3	0	24,052,592	252,509	1.05%	-	252,509	1.05%	0.00%
1170P-02	Generating Station Electrical Systems - Low Voltage	2118	40 R3	0	12,101,614	90,441	0.75%	-	90,441	0.75%	0.00%
1170Q-02	Analog Instrumentation, Control and Protection	2118	49 R4	0	2,011,013	39,489	1.96%	-	39,489	1.96%	0.00%
1170Q-03	Digital Instrumentation, Control and Protection	2118	25 S2	0	13,167,827	497,460	3.78%	-	497,460	3.78%	0.00%
1170Q-04	Backup Power Systems	2118	25 L2.5	0	496,178	18,238	3.68%	-	18,238	3.68%	0.00%
1170Q-05	Cyber and Intelligence Security	2118	10 S3	0	2,344,163	212,586	9.07%	-	212,586	9.07%	0.00%
1170R-01	Mechanical Auxiliary Systems	2118	63 S2	0	70,028,548	578,965	0.83%	-	578,965	0.83%	0.00%
1170R-02	Pressure systems	2118	54 R4	0	925,574	8,400	0.91%	-	8,400	0.91%	0.00%
1170R-03	Tools and test equipment	2118	15 SQ	0	69,550	4,637	6.67%	-	4,637	6.67%	0.00%
	LONG SPRUCE SUBTOTAL				524,732,746	5,998,228	1.14%	(1)	5,998,228	1.14%	0.00%
	Retired Fully Amortized Plant				460,391						
	LONG SPRUCE TOTAL				**525,193,136**	**5,998,228**	**1.14%**	**(1)**	**5,998,228**	**1.14%**	**0.00%**
LIMESTONE											
1175A-01	Concrete Dams, Dykes and Substructures	2131	125 R4	0	466,427,122	3,795,267	0.81%	(87)	3,795,181	0.81%	0.00%
1175A-02	Embankment Dams and Dykes	2131	125 R4	0	11,492,757	92,343	0.80%	(2)	92,341	0.80%	0.00%
1175A-10	Embankment Dams and Dykes Additions for Sustainment	2131	20 SQ	0	71,274	1,819	2.55%	-	1,819	2.55%	0.00%
1175B-01	Superstructures & Support Bldg - Very Long	2131	100 R4	0	1,648,680	16,233	0.98%	-	16,233	0.98%	0.00%
1175B-02	Superstructures & Support Bldg - Long	2131	75 R4	0	1,853,834	27,435	1.48%	-	27,435	1.48%	0.00%
1175B-03	Superstructures & Support Bldg - Medium-Long	2131	55 R3	0	9,535,550	160,964	1.69%	-	160,964	1.69%	0.00%
1175B-04	Superstructures & Support Bldg - Medium	2131	35 R2	0	6,927,131	200,901	2.90%	-	200,901	2.90%	0.00%
1175B-05	Superstructures & Support Bldg - Medium-Short	2131	25 R3	0	5,698,495	231,502	4.06%	-	231,502	4.06%	0.00%
1175B-06	Superstructures & Support Bldg - Short	2131	15 R2	0	1,412,156	130,352	9.23%	-	130,352	9.23%	0.00%

Manitoba Hydro Consolidated Electric Operations
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Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1175D-01	Spillway Substructure	2131	90 R5	0	140,903,599	1,503,407	1.07%	-	1,503,407	1.07%	0.00%
1175D-03	Spillway Additions for Sustainment	2131	25 SQ	0	170,763	6,282	3.68%	-	6,282	3.68%	0.00%
1175D-04	Spillway Superstructure Original construction	2131	70 R5	0	60,387,257	812,216	1.35%	-	812,216	1.35%	0.00%
1175D-05	Spillway Superstructure Subsequent modifications	2131	35 R4	0	1,615,603	45,702	2.83%	-	45,702	2.83%	0.00%
1175E-01	Water Control Support	2131	80 R4	0	105,578,550	903,398	0.86%	-	903,398	0.86%	0.00%
1175F-01	Roads, Grounds and Physical Site Security	2131	50 R3	0	17,919,064	314,721	1.76%	-	314,721	1.76%	0.00%
1175G-01	Turbine and Generator Structural and Embedments	2131	93 S2	0	114,364,515	1,166,447	1.02%	(17)	1,166,430	1.02%	0.00%
1175G-02	Turbine Runner - Fixed Blade	2131	66 L4	0	59,179,216	818,262	1.38%	-	818,262	1.38%	0.00%
1175G-04	Turbine Regulation	2131	55 R4	0	29,641,317	477,046	1.61%	-	477,046	1.61%	0.00%
1175G-05	Turbine Stationary Parts	2131	64 R4	0	31,139,157	444,168	1.43%	-	444,168	1.43%	0.00%
1175G-06	Generator Frames and Core	2131	50 S4	0	54,019,224	923,362	1.71%	-	923,362	1.71%	0.00%
1175G-07	Generator Rotor	2131	65 R4	0	57,780,018	815,368	1.41%	-	815,368	1.41%	0.00%
1175G-08	Generator Windings	2131	52 S4	0	57,780,018	969,102	1.68%	-	969,102	1.68%	0.00%
1175P-01	Generating Station Electrical Systems - High Voltage	2131	63 R3	0	114,616,611	1,483,671	1.29%	-	1,483,671	1.29%	0.00%
1175P-02	Generating Station Electrical Systems - Low Voltage	2131	40 R3	0	12,347,137	181,458	1.47%	-	181,458	1.47%	0.00%
1175Q-01	Mechanical Instrumentation, Control and Protection	2131	55 R2.5	0	33,563	614	1.83%	-	614	1.83%	0.00%
1175Q-02	Analog Instrumentation, Control and Protection	2131	49 R4	0	24,205,357	349,430	1.44%	-	349,430	1.44%	0.00%
1175Q-03	Digital Instrumentation, Control and Protection	2131	25 S2	0	35,048,837	1,509,489	4.31%	-	1,509,489	4.31%	0.00%
1175Q-04	Backup Power Systems	2131	25 L2.5	0	336,145	12,277	3.65%	-	12,277	3.65%	0.00%
1175Q-05	Cyber and Intelligence Security	2131	10 S3	0	2,784,614	228,179	8.19%	-	228,179	8.19%	0.00%
1175R-01	Mechanical Auxiliary Systems	2131	63 S2	0	41,205,958	502,242	1.22%	-	502,242	1.22%	0.00%
1175R-02	Pressure systems	2131	54 R4	0	1,299,783	17,745	1.37%	-	17,745	1.37%	0.00%
1175R-03	Tools and test equipment	2131	15 SQ	0	78,906	5,260	6.67%	-	5,260	6.67%	0.00%
	LIMESTONE SUBTOTAL				1,467,502,208	18,146,664	1.24%	(105)	18,146,558	1.24%	0.00%
	Retired Fully Amortized Plant				2,410,820						
	LIMESTONE TOTAL				**1,469,913,027**	**18,146,664**	**1.24%**	**(105)**	**18,146,558**	**1.23%**	**-0.01%**
WUSKWATIM											
1180A-01	Concrete Dams, Dykes and Substructures	2152	125 R4	0	6,713,937	56,571	0.84%	(0)	56,571	0.84%	0.00%
1180A-02	Embankment Dams and Dykes	2152	125 R4	0	938,873	7,773	0.83%	(0)	7,773	0.83%	0.00%
1180B-01	Superstructures & Support Bldg - Very Long	2152	100 R4	0	1,634,801	16,870	1.03%	-	16,870	1.03%	0.00%
1180B-02	Superstructures & Support Bldg - Long	2152	75 R4	0	269,820	3,712	1.38%	-	3,712	1.38%	0.00%
1180B-03	Superstructures & Support Bldg - Medium-Long	2152	55 R3	0	5,889,279	113,392	1.93%	-	113,392	1.93%	0.00%
1180B-04	Superstructures & Support Bldg - Medium	2152	35 R2	0	4,328,911	134,512	3.11%	-	134,512	3.11%	0.00%
1180B-05	Superstructures & Support Bldg - Medium-Short	2152	25 R3	0	1,783,388	81,781	4.59%	-	81,781	4.59%	0.00%
1180B-06	Superstructures & Support Bldg - Short	2152	15 R2	0	646,764	53,669	8.30%	-	53,669	8.30%	0.00%
1180D-01	Spillway Substructure	2152	90 R5	0	2,716,949	29,745	1.09%	-	29,745	1.09%	0.00%
1180D-04	Spillway Superstructure Original construction	2152	70 R5	0	862,626	11,982	1.39%	-	11,982	1.39%	0.00%
1180E-01	Water Control Support	2152	80 R4	0	2,247,578	27,720	1.23%	-	27,720	1.23%	0.00%
1180F-01	Roads, Grounds and Physical Site Security	2152	50 R3	0	2,729,566	53,352	1.95%	-	53,352	1.95%	0.00%
1180G-01	Turbine and Generator Structural and Embedments	2152	93 S2	0	370,027	3,936	1.06%	(0)	3,936	1.06%	0.00%
1180G-02	Turbine Runner - Fixed Blade	2152	66 L4	0	1,004,284	14,976	1.49%	-	14,976	1.49%	0.00%
1180G-04	Turbine Regulation	2152	55 R4	0	334,744	5,969	1.78%	-	5,969	1.78%	0.00%
1180G-05	Turbine Stationary Parts	2152	64 R4	0	440,465	6,770	1.54%	-	6,770	1.54%	0.00%
1180G-06	Generator Frames and Core	2152	50 S4	0	792,707	15,513	1.96%	-	15,513	1.96%	0.00%
1180G-07	Generator Rotor	2152	65 R4	0	986,804	14,938	1.51%	-	14,938	1.51%	0.00%
1180G-08	Generator Windings	2152	52 S4	0	458,094	8,628	1.88%	-	8,628	1.88%	0.00%
1180P-01	Generating Station Electrical Systems - High Voltage	2152	63 R3	0	1,654,096	25,572	1.55%	-	25,572	1.55%	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1180P-02	Generating Station Electrical Systems - Low Voltage	2152	40 R3	0	432,762	10,156	2.35%	-	10,156	2.35%	0.00%	
1180Q-01	Mechanical Instrumentation, Control and Protection	2152	55 R2.5	0	6,767	124	1.84%	-	124	1.84%	0.00%	
1180Q-02	Analog Instrumentation, Control and Protection	2152	49 R4	0	82,257	1,682	2.04%	-	1,682	2.04%	0.00%	
1180Q-03	Digital Instrumentation, Control and Protection	2152	25 S2	0	638,904	23,591	3.69%	-	23,591	3.69%	0.00%	
1180Q-04	Backup Power Systems	2152	25 L2.5	0	443,992	15,698	3.54%	-	15,698	3.54%	0.00%	
1180Q-05	Cyber and Intelligence Security	2152	10 S3	0	57,094	3,702	6.48%	-	3,702	6.48%	0.00%	
1180R-01	Mechanical Auxiliary Systems	2152	63 S2	0	3,273,767	49,144	1.50%	-	49,144	1.50%	0.00%	
1180R-02	Pressure systems	2152	54 R4	0	225,602	3,892	1.73%	-	3,892	1.73%	0.00%	
1180Z-01	Community Development Costs	2152	95 SQ	0	35,400,112	373,878	1.06%	-	373,878	1.06%	0.00%	
	WUSKWATIM TOTAL				**77,364,970**	**1,169,250**	**1.51%**	**(0)**	**1,169,250**	**1.51%**	**0.00%**	
KEEYASK												
1185A-01	Concrete Dams, Dykes and Substructures		125 R4	0			0.80%			0.80%	0.00%	Note 2
1185A-02	Embankment Dams and Dykes		125 R4	0			0.80%			0.80%	0.00%	Note 2
1185B-01	Superstructures & Support Bldg - Very Long		100 R4	0			1.00%			1.00%	0.00%	Note 2
1185B-02	Superstructures & Support Bldg - Long		75 R4	0			1.33%			1.33%	0.00%	Note 2
1185B-03	Superstructures & Support Bldg - Medium-Long		55 R3	0			1.82%			1.82%	0.00%	Note 2
1185B-04	Superstructures & Support Bldg - Medium		35 R2	0			2.86%			2.86%	0.00%	Note 2
1185B-05	Superstructures & Support Bldg - Medium-Short		25 R3	0			4.00%			4.00%	0.00%	Note 2
1185B-06	Superstructures & Support Bldg - Short		15 R2	0			6.67%			6.67%	0.00%	Note 2
1185D-01	Spillway Substructure		90 R5	0			1.11%			1.11%	0.00%	Note 2
1185D-04	Spillway Superstructure Original construction		70 R5	0			1.43%			1.43%	0.00%	Note 2
1185E-01	Water Control Support		80 R4	0			1.25%			1.25%	0.00%	Note 2
1185F-01	Roads, Grounds and Physical Site Security		50 R3	0			2.00%			2.00%	0.00%	Note 2
1185G-01	Turbine and Generator Structural and Embedments		93 S2	0			1.08%			1.08%	0.00%	Note 2
1185G-02	Turbine Runner - Fixed Blade		66 L4	0			1.52%			1.52%	0.00%	Note 2
1185G-04	Turbine Regulation		55 R4	0			1.82%			1.82%	0.00%	Note 2
1185G-05	Turbine Stationary Parts		64 R4	0			1.56%			1.56%	0.00%	Note 2
1185G-06	Generator Frames and Core		50 S4	0			2.00%			2.00%	0.00%	Note 2
1185G-07	Generator Rotor		65 R4	0			1.54%			1.54%	0.00%	Note 2
1185G-08	Generator Windings		52 S4	0			1.92%			1.92%	0.00%	Note 2
1185P-01	Generating Station Electrical Systems - High Voltage		63 R3	0			1.59%			1.59%	0.00%	Note 2
1185P-02	Generating Station Electrical Systems - Low Voltage		40 R3	0			2.50%			2.50%	0.00%	Note 2
1185Q-01	Mechanical Instrumentation, Control and Protection		55 R2.5	0			1.82%			1.82%	0.00%	Note 2
1185Q-02	Analog Instrumentation, Control and Protection		49 R4	0			2.04%			2.04%	0.00%	Note 2
1185Q-03	Digital Instrumentation, Control and Protection		25 S2	0			4.00%			4.00%	0.00%	Note 2
1185Q-04	Backup Power Systems		25 L2.5	0			4.00%			4.00%	0.00%	Note 2
1185Q-05	Cyber and Intelligence Security		10 S3	0			10.00%			10.00%	0.00%	Note 2
1185R-01	Mechanical Auxiliary Systems		63 S2	0			1.59%			1.59%	0.00%	Note 2
1185R-02	Pressure systems		54 R4	0			1.85%			1.85%	0.00%	Note 2
1185Y	Operational Employment Fund		95 SQ	0			1.05%			1.05%	0.00%	Note 2
1185Z	Community Development Costs		95 SQ	0			1.05%			1.05%	0.00%	Note 2
INFRASTRUCTURE				0								
1199B-02	Superstructures & Support Bldg - Long		75 R4	0	32,422,166	458,389	1.41%	-	458,389	1.41%	0.00%	
1199B-03	Superstructures & Support Bldg - Medium-Long		55 R3	0	27,437,350	514,193	1.87%	-	514,193	1.87%	0.00%	
1199B-04	Superstructures & Support Bldg - Medium		35 R2	0	46,532,444	1,353,147	2.91%	-	1,353,147	2.91%	0.00%	
1199B-05	Superstructures & Support Bldg - Medium-Short		25 R3	0	32,500,211	1,349,525	4.15%	-	1,349,525	4.15%	0.00%	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1199B-06	Superstructures & Support Bldg - Short		15 R2	0	17,164,290	1,125,837	6.56%	-	1,125,837	6.56%	0.00%	
1199F-01	Roads, Grounds and Physical Site Security		50 R3	0	31,498,880	618,954	1.97%	-	618,954	1.97%	0.00%	
1199Y-01	Municipal Services		38 R3	0	71,048,855	1,983,978	2.79%	-	1,983,978	2.79%	0.00%	
1199Z-01	Community Development Costs		85 SQ	0	3,297,342	32,310	0.98%	-	32,310	0.98%	0.00%	
	INFRASTRUCTURE TOTAL				**261,901,539**	**7,436,335**	**2.84%**	**-**	**7,436,335**	**2.84%**	**0.00%**	
	HYDRAULIC GENERATION TOTAL				**6,750,702,987**	**100,277,037**	**1.49%**	**82,418**	**100,359,456**	**1.49%**	**0.00%**	
THERMAL GENERATION												
BRANDON 6 AND 7												
1210B-02	Superstructures & Support Bldg - Long		75 R4	0	9,665,500	85,178	0.88%	-	85,178	0.88%	0.00%	
1210B-03	Superstructures & Support Bldg - Medium-Long		55 R3	0	8,802,732	116,158	1.32%	-	116,158	1.32%	0.00%	
1210B-04	Superstructures & Support Bldg - Medium		35 R2	0	7,897,584	97,229	1.23%	-	97,229	1.23%	0.00%	
1210B-05	Superstructures & Support Bldg - Medium-Short		25 R3	0	6,926,718	63,211	0.91%	-	63,211	0.91%	0.00%	
1210B-06	Superstructures & Support Bldg - Short		15 R2	0	2,253,894	96,400	4.28%	-	96,400	4.28%	0.00%	
1210F-01	Roads, Grounds and Physical Site Security		50 R3	0	4,148,997	43,192	1.04%	-	43,192	1.04%	0.00%	
1210G-06	Generator Frames and Core		50 S4	0	17,241,946	169,572	0.98%	-	169,572	0.98%	0.00%	
1210G-07	Generator Rotor		65 R4	0	21,552,432	215,959	1.00%	-	215,959	1.00%	0.00%	
1210G-08	Generator Windings		52 S4	0	10,237,405	102,447	1.00%	-	102,447	1.00%	0.00%	
1210K-01	Combustion Turbine		40 R3	0	84,743,704	771,416	0.91%	-	771,416	0.91%	0.00%	
1210P-01	Generating Station Electrical Systems - High Voltage		63 R3	0	16,432,469	192,894	1.17%	-	192,894	1.17%	0.00%	
1210P-02	Generating Station Electrical Systems - Low Voltage		40 R3	0	5,825,414	91,139	1.56%	-	91,139	1.56%	0.00%	
1210Q-02	Analog Instrumentation, Control and Protection		49 R4	0	2,420,426	426	0.02%	-	426	0.02%	0.00%	
1210Q-03	Digital Instrumentation, Control and Protection		25 S2	0	4,494,361	62,360	1.39%	-	62,360	1.39%	0.00%	
1210Q-04	Backup Power Systems		25 L2.5	0	8,337	333	4.00%	-	333	4.00%	0.00%	
1210Q-05	Cyber and Intelligence Security		10 S3	0	1,809,585	25,960	1.43%	-	25,960	1.43%	0.00%	
1210R-01	Mechanical Auxiliary Systems		63 S2	0	36,200,540	301,836	0.83%	-	301,836	0.83%	0.00%	
1210R-02	Pressure systems		54 R4	0	538,811	5,495	1.02%	-	5,495	1.02%	0.00%	
1210R-03	Tools and test equipment		15 SQ	0	673,722	44,915	6.67%	-	44,915	6.67%	0.00%	
	BRANDON 6 AND 7 SUBTOTAL				241,874,578	2,486,120	1.03%	-	2,486,120	1.03%	0.00%	
	Retired Fully Amortized Plant				2,106,441							
	BRANDON 6 AND 7 TOTAL				**243,981,019**	**2,486,120**	**1.03%**	**-**	**2,486,120**	**1.02%**	**-0.01%**	
SELKIRK												
1215B	Powerhouse		75 R4	0	6,122,394			-	184,896	3.02%	3.02%	Note 1
1215C	Powerhouse Renovations		40 SQ	0	2,580,648			-	185,032	7.17%	7.17%	Note 1
1215F	Roads and Site Improvements		50 R3	0	1,656,471			-	47,209	2.85%	2.85%	Note 1
1215G	Thermal Turbines and Generators		60 S2	0	23,638,427			-	248,374	1.05%	1.05%	Note 1
1215H	Governors and Excitation System		50 R4	0	17,307			-	219	1.26%	1.26%	Note 1
1215J	Steam Generator and Auxiliaries		60 R3	0	53,901,601			-	1,277,468	2.37%	2.37%	Note 1
1215L	License Renewal		50 SQ	0				-	-	2.00%	2.00%	Note 1
1215P	A/C Electrical Power Systems		60 R4	0	3,962,949			-	191,807	4.84%	4.84%	Note 1
1215Q	Instrumentation, Control and D/C Systems		25 S2	0	6,522,621			-	271,341	4.16%	4.16%	Note 1
1215R	Auxiliary Station Processes		50 R2	0	15,023,580			-	401,130	2.67%	2.67%	Note 1
1215X	Support Buildings		65 S3	0	1,033,229			-	22,214	2.15%	2.15%	Note 1
1215W	Support Building Renovations		20 SQ	0	33,744			-	2,382	7.06%	7.06%	Note 1
	SELKIRK TOTAL				**114,492,971**			**-**	**2,832,072**	**2.47%**	**2.47%**	
	THERMAL GENERATION TOTAL				**358,473,990**	**2,486,120**	**1.03%**	**-**	**5,318,192**	**1.48%**	**0.45%**	

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DIESEL GENERATION											
1300B-02	Diesel Generation Buildings - Long		35 R2	0	2,464,890	38,050	1.54%	-	38,050	1.54%	0.00%
1300B-03	Diesel Generation Buildings - Medium-Long		35 R2	0	1,529,932	26,244	1.72%	-	26,244	1.72%	0.00%
1300B-04	Diesel Generation Buildings - Medium		35 R2	0	3,783,085	58,797	1.55%	-	58,797	1.55%	0.00%
1300B-05	Diesel Generation Buildings - Medium-Short		25 R3	0	1,386,567	32,876	2.37%	-	32,876	2.37%	0.00%
1300B-06	Diesel Generation Buildings - Short		15 R2	0	934,958	55,843	5.97%	-	55,843	5.97%	0.00%
1300Q-01	Diesel Accessory Station Equipment - Electrical & Mechanical		30 R2.5	0	10,117,572	108,917	1.08%	-	108,917	1.08%	0.00%
1300Q-02	Diesel Accessory Station Equipment - Fire & Control Systems		25 R2	0	8,133,160	164,959	2.03%	-	164,959	2.03%	0.00%
1300Q-03	Diesel Accessory Station Equipment - Heat Recovery Systems		18 R5	0	837,744	24,659	2.94%	-	24,659	2.94%	0.00%
1300N	Engines and Generators		30 R2	0	21,297,559	256,194	1.20%	-	256,194	1.20%	0.00%
1300T	Fuel Storage and Handling		27 R2.5	0	10,316,521	312,112	3.03%	-	312,112	3.03%	0.00%
	DIESEL GENERATION TOTAL				**60,801,989**	**1,078,652**	**1.77%**	**-**	**1,078,652**	**1.77%**	**0.00%**
TRANSMISSION LINES											
2000F	Road, Trails, and Bridges		55 R3	0	12,716,268	219,008	1.72%	-	219,008	1.72%	0.00%
2000G	Metal Towers and Concrete Poles		85 R4	0	1,671,075,743	19,491,326	1.17%	-	19,491,326	1.17%	0.00%
2000J-01	Wood Poles and Fixtures		57 R4	0	99,522,008	1,597,952	1.61%	-	1,597,952	1.61%	0.00%
2000J-02	Wood Cross Arms and Spar Arms		47 R4	0	42,954,564	840,110	1.96%	-	840,110	1.96%	0.00%
2000K	Ground Line Treatment		12 SQ	0	3,163,001	251,603	7.95%	-	251,603	7.95%	0.00%
2000L-01	Overhead Conductor and Devices		85 R4	0	791,218,342	8,813,126	1.11%	-	8,813,126	1.11%	0.00%
2000L-02	Spacer Dampers		20 S6	0	80,241,187	3,586,571	4.47%	-	3,586,571	4.47%	0.00%
2000M	Underground Cable and Devices		50 R4	0	18,646,650	370,450	1.99%	-	370,450	1.99%	0.00%
2000Z	Transmission Development Fund		79 SQ	0	96,310,532	1,214,368	1.26%	-	1,214,368	1.26%	0.00%
	TRANSMISSION LINES TOTAL				**2,815,848,296**	**36,384,514**	**1.29%**	**-**	**36,384,514**	**1.29%**	**0.00%**
SUBSTATIONS											
3000B-02	Substation Buildings - Long		75 R4	0	270,694,874	3,642,972	1.35%	-	3,642,972	1.35%	0.00%
3000B-03	Substation Buildings - Medium-Long		55 R3	0	81,936,178	1,505,744	1.84%	-	1,505,744	1.84%	0.00%
3000B-04	Substation Buildings - Medium		35 R2	0	215,314,632	6,228,852	2.89%	-	6,228,852	2.89%	0.00%
3000B-05	Substation Buildings - Medium-Short		25 R3	0	140,130,715	5,693,065	4.06%	-	5,693,065	4.06%	0.00%
3000B-06	Substation Buildings - Short		15 R2	0	51,164,075	3,406,039	6.66%	-	3,406,039	6.66%	0.00%
3000F-01	Roads, Steel Structures and Civil Site Work		55 R4	0	1,358,261,460	23,794,474	1.75%	-	23,794,474	1.75%	0.00%
3000F-02	Ground Grid		30 R2	0	60,919,456	1,894,417	3.11%	-	1,894,417	3.11%	0.00%
3000J	Poles and Fixtures		45 R3	0	8,951,203	181,574	2.03%	-	181,574	2.03%	0.00%
3100R-01	AC Power & Grounding Transformers		55 R2	0	491,413,525	8,854,440	1.80%	-	8,854,440	1.80%	0.00%
3100R-02	AC Bushings		30 R1	0	76,710,441	2,520,212	3.29%	-	2,520,212	3.29%	0.00%
3100S-01	AC Other Transformers, Reactors & Regulators		45 R2	0	196,702,605	4,246,449	2.16%	-	4,246,449	2.16%	0.00%
3100S-02	AC Capacitor Banks		25 R2	0	31,098,478	957,346	3.08%	-	957,346	3.08%	0.00%
3100T-01	AC Breakers - Air, SF6 & Vacuum		45 R2	0	283,877,505	6,282,663	2.21%	-	6,282,663	2.21%	0.00%
3100T-02	AC Breakers - Oil		60 R3	0	19,363,560	334,844	1.73%	-	334,844	1.73%	0.00%
3100T-03	AC Switchgear, Circuit Switchers, & Reclosers		40 R2	0	99,042,821	2,486,903	2.51%	-	2,486,903	2.51%	0.00%
3100U-01	AC Bus, Cable, Hardware & Other Equipment		55 R3	0	408,817,137	6,057,720	1.48%	-	6,057,720	1.48%	0.00%
3100U-02	AC Disconnects, Insulators & Power Fuses		50 R1	0	159,241,015	2,734,277	1.72%	-	2,734,277	1.72%	0.00%
3100U-03	AC Arresters		35 R2	0	56,615,484	1,423,920	2.52%	-	1,423,920	2.52%	0.00%
3100V-01	AC Protection & Control - Electromechanical & Solid State		35 S5	0	65,892,872	1,084,607	1.65%	-	1,084,607	1.65%	0.00%
3100V-02	AC Protection & Control - Digital & Computer		25 R2.5	0	287,769,701	10,696,209	3.72%	-	10,696,209	3.72%	0.00%
3100V-03	AC Battery Banks & Chargers		20 R3	0	39,488,522	1,685,672	4.27%	-	1,685,672	4.27%	0.00%
3200M-01	HVDC Synchronous Condensers		65 R3	0	211,781,161	3,194,327	1.51%	-	3,194,327	1.51%	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
3200M-02	HVDC Synchronous Condensers - Portion Subject to Overhaul		20 R2	0	99,593,962	3,873,883	3.89%	-	3,873,883	3.89%	0.00%
3200M-03	HVDC Synch Excitation and Unit Transformers		55 R2	0	89,491,956	1,591,900	1.78%	-	1,591,900	1.78%	0.00%
3200P-01	HVDC Converter Transformers		40 R2	0	730,985,160	16,393,134	2.24%	-	16,393,134	2.24%	0.00%
3200P-02	HVDC Converter Equipment - Other		30 R2	0	455,832,866	11,040,850	2.42%	-	11,040,850	2.42%	0.00%
3200S-01	HVDC AC Filters & Measuring Devices		30 R2	0	129,584,652	2,460,662	1.90%	-	2,460,662	1.90%	0.00%
3200S-02	HVDC DC Filters		20 R2	0	45,079,071	886,371	1.97%	-	886,371	1.97%	0.00%
3200S-03	HVDC Wall & Transformer Bushings		30 R1	0	34,246,295	791,507	2.31%	-	791,507	2.31%	0.00%
3200U-01	HVDC Bus, Cable, Hardware & Other Equipment		50 R3	0	138,044,833	2,345,949	1.70%	-	2,345,949	1.70%	0.00%
3200U-02	HVDC Disconnects & Arresters		45 R2	0	65,677,980	1,190,386	1.81%	-	1,190,386	1.81%	0.00%
3200V-01	HVDC Protection & Control - Electromechanical & Solid State		35 S5	0	34,327,950	475,292	1.38%	-	475,292	1.38%	0.00%
3200V-02	HVDC Protection & Control - Digital & Computer		25 R2.5	0	126,967,662	4,507,951	3.55%	-	4,507,951	3.55%	0.00%
3200V-03	HVDC Battery Banks & Chargers		20 R3	0	16,884,215	720,099	4.26%	-	720,099	4.26%	0.00%
3300M-01	Brandon Synchronous Condenser		65 R3	0	1,766,856	947	0.05%	-	947	0.05%	0.00%
3300M-02	Brandon Synchronous Condenser - Portion Subject to Overhaul		20 R2	0	5,551,508	4,942	0.09%	-	4,942	0.09%	0.00%
3300M-03	Brandon Synch - Unit Transformer		55 R2	0	353,452	5,050	1.43%	-	5,050	1.43%	0.00%
3300U-01	Brandon Synch - Bus, Cable, Hardware & Other Equipment		50 R3	0	2,786,674	4,901	0.18%	-	4,901	0.18%	0.00%
3300V-01	Brandon Synch - Protection & Control - Electromechanical & Solid State		35 S5	0	3,198,436	21,159	0.66%	-	21,159	0.66%	0.00%
3300V-02	Brandon Synch - Protection & Control - Digital & Computer		25 R2.5	0	3,086,208	26,401	0.86%	-	26,401	0.86%	0.00%
	SUBSTATIONS TOTAL				**6,598,647,152**	**145,248,110**	**2.20%**	**-**	**145,248,110**	**2.20%**	**0.00%**
DISTRIBUTION LINES											
4001A	Group 1 - Concrete Ductline - MH Constr		75 R4	0	26,901,107	338,422	1.26%	-	338,422	1.26%	0.00%
4002A	Group 2 - Concrete Ductline - WH Acq		42 R4	0	38,677,546	880,566	2.28%	-	880,566	2.28%	0.00%
4000A	Concrete Ductline				65,578,653	1,218,988		-	1,218,988		
4001B	Group 1 - Concrete Manholes - MH Constr		75 R4	0	26,560,157	342,841	1.29%	-	342,841	1.29%	0.00%
4002B	Group 2 - Concrete Manholes - WH Acq		42 R4	0	14,887,271	367,555	2.47%	-	367,555	2.47%	0.00%
4000B	Concrete Manholes				41,447,428	710,396		-	710,396		
4000D	Concrete Manhole Refurbishment		30 R3	0	9,742,007	327,222	3.36%	-	327,222	3.36%	0.00%
4000G	Metal Towers		60 R3	0	12,138,708	194,719	1.60%	-	194,719	1.60%	0.00%
4000J	Poles and Fixtures		60 S0	0	860,523,469	10,867,574	1.26%	-	10,867,574	1.26%	0.00%
4000K	Ground Line Treatment		15 SQ	0	50,696,569	2,886,874	5.69%	-	2,886,874	5.69%	0.00%
4000L-01	Overhead Conductor and Devices - Conductor		65 R1	0	750,677,524	10,016,772	1.33%	-	10,016,772	1.33%	0.00%
4000L-02	Overhead Conductor and Devices - Insulators		40 R3	0	135,088,183	2,339,016	1.73%	-	2,339,016	1.73%	0.00%
4000L-03	Overhead Conductor and Devices - Ground Rod Replacement Program		15 SQ	0	13,377,471	377,530	2.82%	-	377,530	2.82%	0.00%
4000N-01	Underground Cable and Devices - PILC, HPPT & LPOF		70 R1	0	9,038,210	125,931	1.39%	-	125,931	1.39%	0.00%
4000N-02	Underground Cable and Devices - XLPE, RINJ & RIPVCJ		40 R2	0	378,936,948	8,606,911	2.27%	-	8,606,911	2.27%	0.00%
4000N-03	Underground Cable and Devices - TRXLPE		55 R2	0	478,040,900	8,492,744	1.78%	-	8,492,744	1.78%	0.00%
4000Q-01	Serialized Equipment - Pole Mount - Transformers & Other		50 R3	0	247,659,826	4,533,626	1.83%	-	4,533,626	1.83%	0.00%
4000Q-02	Serialized Equipment - Pole Mount - Reclosers		11 R1.5	0	58,109,314	4,442,780	7.65%	-	4,442,780	7.65%	0.00%
4000S	Serialized Equipment - Pad Mount		45 R3	0	260,639,991	5,092,577	1.95%	-	5,092,577	1.95%	0.00%
4000T	Underground Cable Injection		40 R3	0	15,145,190	371,861	2.46%	-	371,861	2.46%	0.00%
4000V	Electronic Equipment		8 SQ	0	2,949,862	442,995	15.02%	-	442,995	15.02%	0.00%
4000W	Services		35 R1.5	0	83,596,667	932,157	1.12%	-	932,157	1.12%	0.00%
4000X	Street Lighting		50 L3	0	220,358,576	3,878,246	1.76%	-	3,878,246	1.76%	0.00%
	DISTRIBUTION LINES TOTAL				**3,693,745,496**	**65,858,917**	**1.78%**	**-**	**65,858,917**	**1.78%**	**0.00%**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DISTRIBUTION METERS											
4900V	Meters - Electronic		15 L3	0	22,540,820	1,500,647	6.66%	-	1,500,647	6.66%	0.00%
4900W	Metering Exchanges		15 SQ	0	46,724,135	3,143,074	6.73%	-	3,143,074	6.73%	0.00%
4900Y	Meters Analog		26 L1.5	0	13,506,423	351,810	2.60%	-	351,810	2.60%	0.00%
4900Z	Metering Transformers		50 R2.5	0	12,550,747	223,431	1.78%	-	223,431	1.78%	0.00%
	DISTRIBUTION METERS TOTAL				**95,322,124**	**5,218,962**	**5.48%**	**-**	**5,218,962**	**5.48%**	**0.00%**
COMMUNICATION											
5000B-01	Communication Buildings - Very Long		10 R4	0	4,470,592	48,654	1.09%	-	48,654	1.09%	0.00%
5000B-02	Communication Buildings - Long		75 R4	0	3,743,491	50,646	1.35%	-	50,646	1.35%	0.00%
5000B-03	Communication Buildings - Medium-Long		55 R3	0	4,167,934	84,070	2.02%	-	84,070	2.02%	0.00%
5000B-04	Communication Buildings - Medium		35 R2	0	9,172,181	275,002	3.00%	-	275,002	3.00%	0.00%
5000B-05	Communication Buildings - Medium-Short		25 R3	0	7,456,194	307,742	4.13%	-	307,742	4.13%	0.00%
5000B-06	Communication Buildings - Short		15 R2	0	3,908,742	303,645	7.77%	-	303,645	7.77%	0.00%
5000G-01	Communication Towers - Structure		70 R2.5	0	14,395,908	203,081	1.41%	-	203,081	1.41%	0.00%
5000G-02	Communication Towers - Lighting		40 R4	0	1,332,051	32,451	2.44%	-	32,451	2.44%	0.00%
5000G-03	Communication Towers - Cathodic Protection		25 R2.5	0	525,342	20,263	3.86%	-	20,263	3.86%	0.00%
5000H	Fibre Optic and Metallic Cable		40 R3	0	207,483,703	5,037,577	2.43%	-	5,037,577	2.43%	0.00%
5000J-01	Communication - Battery Banks, Chargers & UPS		20 R3	0	29,433,804	1,320,433	4.49%	-	1,320,433	4.49%	0.00%
5000J-02	Communication - Backup Diesel Generators		35 R4	0	7,047,848	178,258	2.53%	-	178,258	2.53%	0.00%
5000J-03	Communication - MW, Optical, Span Line & HVI Carrier Equipment		22 R3	0	101,319,160	3,788,173	3.74%	-	3,788,173	3.74%	0.00%
5000J-04	Communication - Powerline Carrier Electronic Equipment		22 L2	0	5,476,539	212,159	3.87%	-	212,159	3.87%	0.00%
5000J-05	Communication - VHF Network Equipment		15 R1	0	10,920,576	671,811	6.15%	-	671,811	6.15%	0.00%
5000K-01	Communication - Operational Technology Electronic Displays		5 SQ	0	2,919,554	433,111	14.83%	-	433,111	14.83%	0.00%
5000K-02	Communication - Operational Technology Servers & Storage		7 SQ	0	6,120,911	775,511	12.67%	-	775,511	12.67%	0.00%
5000M-01	Communication - VHF Mobile & Handheld Radios		8 SQ	0	10,124,419	833,362	8.23%	-	833,362	8.23%	0.00%
5000M-02	Communication - Telephones & Video Conferencing		15 SQ	0	5,381,917	300,372	5.58%	-	300,372	5.58%	0.00%
5000N	Operational Data Network		8 SQ	0	23,116,986	3,054,786	13.21%	-	3,054,786	13.21%	0.00%
5000R-02	Communication - Power System Control - Digital		15 R2.5	0	992,757	11,752	1.18%	-	11,752	1.18%	0.00%
5000R-03	Communication - Station Control & Monitoring - Analog/Mechanical		35 S5	0	227,223	13,122	5.77%	-	13,122	5.77%	0.00%
5000R-04	Communication - Station Control & Monitoring - Digital		25 R2.5	0	9,048,523	224,811	2.48%	-	224,811	2.48%	0.00%
	COMMUNICATION TOTAL				**468,786,356**	**18,180,794**	**3.88%**	**-**	**18,180,794**	**3.88%**	**0.00%**
MOTOR VEHICLES											
6000E	Passenger Vehicles		10 L3	10	966,994	95,187	9.84%	-	95,187	9.84%	0.00%
6000F	Light Trucks		11 L3	10	74,182,974	5,844,783	7.88%	-	5,844,783	7.88%	0.00%
6000G	Heavy Trucks		17 S3	7	90,320,443	5,106,775	5.65%	-	5,106,775	5.65%	0.00%
6000H	Construction Equipment		20 R1.5	20	30,417,023	1,077,708	3.54%	-	1,077,708	3.54%	0.00%
6000I	Large Soft-Track Equipment		25 L1.5	15	20,402,145	647,871	3.18%	-	647,871	3.18%	0.00%
6000J	Trailers		30 L2	10	23,143,252	715,076	3.09%	-	715,076	3.09%	0.00%
6000K	Miscellaneous Vehicles		10 L1	15	6,972,075	485,911	6.97%	-	485,911	6.97%	0.00%
	MOTOR VEHICLES TOTAL				**246,404,905**	**13,973,312**	**5.67%**	**-**	**13,973,312**	**5.67%**	**0.00%**
BUILDINGS											
8000B-01	Admin Building - Very Long		100 R4	0	59,649,105	628,679	1.05%	-	628,679	1.05%	0.00%
8000B-02	Admin Building - Long		75 R4	0	47,507,703	690,628	1.45%	-	690,628	1.45%	0.00%
8000B-03	Admin Building - Medium Long		55 R3	0	101,151,532	1,993,667	1.97%	-	1,993,667	1.97%	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
8000B-04	Admin Building - Medium		35 R2	0	148,484,987	4,735,990	3.19%	-	4,735,990	3.19%	0.00%
8000B-05	Admin Building - Medium Short		25 R3	0	85,151,414	3,684,326	4.33%	-	3,684,326	4.33%	0.00%
8000B-06	Admin Building - Short		15 R2	0	38,040,963	2,835,254	7.45%	-	2,835,254	7.45%	0.00%
8000F	Leasehold Improvements-Sony Place		10 SQ	0	57,707	5,848	10.13%	-	5,848	10.13%	0.00%
	BUILDINGS TOTAL				**480,043,411**	**14,574,390**	**3.04%**	**-**	**14,574,390**	**3.04%**	**0.00%**
GENERAL EQUIPMENT											
9000H-01	General Plant - Tools, Shop & Garage Equipment - Electronic		10 SQ	0	38,022,510	6,436,949	16.93%	-	6,436,949	16.93%	0.00%
9000H-02	General Plant - Tools, Shop & Garage Equipment - Non-Electronic		15 SQ	0	39,177,462	3,129,969	7.99%	-	3,129,969	7.99%	0.00%
9000K-01	General Plant - Computer Equipment - PC's & Peripherals		5 SQ	0	24,367,160	4,528,000	18.58%	-	4,528,000	18.58%	0.00%
9000K-02	General Plant - Computer Equipment - Servers & Storage		7 SQ	0	17,523,966	2,407,339	13.74%	-	2,407,339	13.74%	0.00%
9000L	Office Furniture & Equipment		20 SQ	0	28,560,439	1,380,801	4.83%	-	1,380,801	4.83%	0.00%
9000M	Hot Water Tanks		6 SQ	0	1,076	181	16.83%	-	181	16.83%	0.00%
	GENERAL EQUIPMENT SUBTOTAL				147,652,614	17,883,238	12.11%	-	17,883,238	12.11%	0.00%
	Retired Fully Amortized Plant				18,299,374						
	GENERAL EQUIPMENT TOTAL				**165,951,987**	**17,883,238**	**12.11%**	**-**	**17,883,238**	**10.78%**	**-1.33%**
	PROPERTY, PLANT AND EQUIPMENT TOTAL				**21,734,728,693**	**421,164,048**	**1.94%**	**82,418**	**424,078,539**	**1.95%**	**0.01%**
EASEMENTS											
A100A	Easements		75 SQ	0	156,800,616	2,090,388	1.33%	-	2,090,388	1.33%	0.00%
	EASEMENTS TOTAL				**156,800,616**	**2,090,388**	**1.33%**	**-**	**2,090,388**	**1.33%**	**0.00%**
COMPUTER SOFTWARE AND DEVELOPMENT											
A200G-01	Major Computer Systems - SAP		15 S3	0	77,028,467	2,836,541	3.68%	-	2,836,541	3.68%	0.00%
A200G-02	Major Computer Systems - Banner		20 S5	0	21,505,240	366,153	1.70%	-	366,153	1.70%	0.00%
A200G-03	Major Computer Systems - eGIS		10 S2	0	23,966,043	468,768	1.96%	-	468,768	1.96%	0.00%
A200G-04	Major Computer Systems - MWM		12 S6	0	17,055,411	48,652	0.29%	-	48,652	0.29%	0.00%
A200H-01	Computer Systems and Software - Long (9 - 12 Years)		11 SQ	0	6,650,923	1,023,637	15.39%	-	1,023,637	15.39%	0.00%
A200H-02	Computer Systems and Software - Medium (6-8 Years)		7 SQ	0	30,536,851	6,455,192	21.14%	-	6,455,192	21.14%	0.00%
A200J-01	Computer Systems and Software - Short (3-5 Years)		4 SQ	0	10,074,657	3,635,872	36.09%	-	3,635,872	36.09%	0.00%
A200K	Operational Technology Systems and Software		5 SQ	0	5,729,299	851,042	14.85%	-	851,042	14.85%	0.00%
A200L	Energy Management System Applications - EMS/SCADA		7 S3	0	13,430,074	481,585	3.59%	-	481,585	3.59%	0.00%
	COMPUTER SOFTWARE AND DEVELOPMENT SUBTOTAL				205,976,965	16,167,441	7.85%	-	16,167,441	7.85%	0.00%
	Retired Fully Amortized Plant				14,832,027						
	COMPUTER SOFTWARE AND DEVELOPMENT TOTAL				**220,808,992**	**16,167,441**	**7.85%**	**-**	**16,167,441**	**7.32%**	**-0.53%**
	INTANGIBLE ASSETS TOTAL				**377,609,608**	**18,257,830**	**4.84%**	**-**	**18,257,830**	**4.84%**	**0.00%**
	MANITOBA HYDRO TOTAL				**22,112,338,301**	**439,421,877**	**1.99%**	**82,418**	**442,336,368**	**2.00%**	**0.01%**

Manitoba Hydro Consolidated Electric Operations
Calculated Annual Depreciation Accrual Rates
For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Whole-Life Technique

Acct No	Account Description	Life Span Date	Survivor Curve (Alliance)	Net Salvage Percentage	Plant Investment at March 31, 2019	IFRS-ASL Annual Accrual Amount Remaining Life Technique (Alliance)	IFRS-ASL Depreciation Rate Remaining Life Technique (Alliance)	Adjustment Required to Apply Whole Life Technique	IFRS-ASL Annual Accrual Amount Whole Life Technique	IFRS-ASL Depreciation Rate Whole Life Technique	IFRS-ASL Depreciation Rate Difference Whole Life vs Remaining Life Technique
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
WUSKWATIM POWER LIMITED PARTNERSHIP											
HYDRAULIC GENERATION											
1181A-01WPLP	Concrete Dams, Dykes and Substructures	2152	125 R4	0	548,351,207	4,567,815	0.83%	(10)	4,567,805	0.83%	0.00%
1181A-02WPLP	Embankment Dams and Dykes	2152	125 R4	0	29,594,107	245,829	0.83%	(1)	245,828	0.83%	0.00%
1181B-01WPLP	Superstructures & Support Bldg - Very Long	2152	100 R4	0	10,202,071	103,294	1.01%	-	103,294	1.01%	0.00%
1181B-02WPLP	Superstructures & Support Bldg - Long	2152	75 R4	0	10,103,122	138,642	1.37%	-	138,642	1.37%	0.00%
1181B-03WPLP	Superstructures & Support Bldg - Medium-Long	2152	55 R3	0	41,978,152	783,007	1.87%	-	783,007	1.87%	0.00%
1181B-04WPLP	Superstructures & Support Bldg - Medium	2152	35 R2	0	34,600,929	1,029,551	2.98%	-	1,029,551	2.98%	0.00%
1181B-05WPLP	Superstructures & Support Bldg - Medium-Short	2152	25 R3	0	15,800,109	678,644	4.30%	-	678,644	4.30%	0.00%
1181B-06WPLP	Superstructures & Support Bldg - Short	2152	15 R2	0	7,248,329	549,533	7.58%	-	549,533	7.58%	0.00%
1181D-01WPLP	Spillway Substructure	2152	90 R5	0	85,291,040	938,262	1.10%	-	938,262	1.10%	0.00%
1181D-04WPLP	Spillway Superstructure Original construction	2152	70 R5	0	27,040,911	377,737	1.40%	-	377,737	1.40%	0.00%
1181E-01WPLP	Water Control Support	2152	80 R4	0	71,683,993	886,881	1.24%	-	886,881	1.24%	0.00%
1181F-01WPLP	Roads, Grounds and Physical Site Security	2152	50 R3	0	89,034,420	1,743,139	1.96%	-	1,743,139	1.96%	0.00%
1181G-01WPLP	Turbine and Generator Structural and Embedments	2152	93 S2	0	12,186,427	130,215	1.07%	-	130,215	1.07%	0.00%
1181G-02WPLP	Turbine Runner - Fixed Blade	2152	66 L4	0	33,077,443	496,402	1.50%	-	496,402	1.50%	0.00%
1181G-04WPLP	Turbine Regulation	2152	55 R4	0	11,025,814	198,134	1.80%	-	198,134	1.80%	0.00%
1181G-05WPLP	Turbine Stationary Parts	2152	64 R4	0	14,507,651	224,453	1.55%	-	224,453	1.55%	0.00%
1181G-06WPLP	Generator Frames and Core	2152	50 S4	0	26,113,771	515,477	1.97%	-	515,477	1.97%	0.00%
1181G-07WPLP	Generator Rotor	2152	65 R4	0	32,497,137	495,124	1.52%	-	495,124	1.52%	0.00%
1181G-08WPLP	Generator Windings	2152	52 S4	0	15,087,957	286,542	1.90%	-	286,542	1.90%	0.00%
1181P-01WPLP	Generating Station Electrical Systems - High Voltage	2152	63 R3	0	49,113,650	765,374	1.56%	-	765,374	1.56%	0.00%
1181P-02WPLP	Generating Station Electrical Systems - Low Voltage	2152	40 R3	0	13,619,041	325,169	2.39%	-	325,169	2.39%	0.00%
1181Q-01WPLP	Mechanical Instrumentation, Control and Protection	2152	55 R2.5	0	208,201	3,833	1.84%	-	3,833	1.84%	0.00%
1181Q-02WPLP	Analog Instrumentation, Control and Protection	2152	49 R4	0	2,588,113	53,127	2.05%	-	53,127	2.05%	0.00%
1181Q-03WPLP	Digital Instrumentation, Control and Protection	2152	25 S2	0	20,956,533	791,576	3.78%	-	791,576	3.78%	0.00%
1181Q-04WPLP	Backup Power Systems	2152	25 L2.5	0	14,620,404	537,771	3.68%	-	537,771	3.68%	0.00%
1181Q-05WPLP	Cyber and Intelligence Security	2152	10 S3	0	2,680,716	200,437	7.48%	-	200,437	7.48%	0.00%
1181R-01WPLP	Mechanical Auxiliary Systems	2152	63 S2	0	99,634,010	1,523,331	1.53%	-	1,523,331	1.53%	0.00%
1181R-02WPLP	Pressure systems	2152	54 R4	0	15,375,508	269,611	1.75%	-	269,611	1.75%	0.00%
1181YWPLP	Operational Employment Fund	2152	95 SQ	0	389,662	4,167	1.07%	-	4,167	1.07%	0.00%
1181ZWPLP	Community Development Costs	2152	95 SQ	0	750,000	7,534	1.00%	-	7,534	1.00%	0.00%
	HYDRAULIC GENERATION TOTAL				**1,335,360,430**	**18,870,613**	**1.41%**	**(11)**	**18,870,602**	**1.41%**	**0.00%**
SUBSTATIONS											
3181R-01WPLP	AC Power & Grounding Transformers		55 R2	0	4,222,098	71,278	1.69%	-	71,278	1.69%	0.00%
3181R-02WPLP	AC Bushings		30 R1	0	259,959	7,693	2.96%	-	7,693	2.96%	0.00%
	SUBSTATIONS TOTAL				**4,482,057**	**78,971**	**1.76%**	**-**	**78,971**	**1.76%**	**0.00%**
COMMUNICATION											
5081HWPLP	Fibre Optic & Metallic Cable		40 R3	0	150,000	3,488	2.33%	-	3,488	2.33%	0.00%
5081J-03WPLP	MW, Optical, Span Line & HVI Carrier Equipment		22 R3	0	20,000	786	3.93%	-	786	3.93%	0.00%
5081J-05WPLP	VHF Network Equipment		15 R1	0	30,000	1,701	5.67%	-	1,701	5.67%	0.00%
	COMMUNICATION TOTAL				**200,000**	**5,975**	**2.99%**	**-**	**5,975**	**2.99%**	**0.00%**
MOTOR VEHICLES											
6081GWPLP	Heavy Trucks		17 S3	7	46,325	1,267	2.73%	-	1,267	2.73%	0.00%
6081HWPLP	Construction Equipment		20 R1.5	20	42,012	1,614	3.84%	-	1,614	3.84%	0.00%
6081JWPLP	Trailers		30 L2	10	82,208	2,483	3.02%	-	2,483	3.02%	0.00%

Manitoba Hydro Consolidated Electric Operations
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
6081KWPLP	Miscellaneous Vehicles		10 L1	15	54,399	3,160	5.81%	-	3,160	5.81%	0.00%	
	MOTOR VEHICLES TOTAL				**224,944**	**8,523**	**3.79%**	**-**	**8,523**	**3.79%**	**0.00%**	
GENERAL EQUIPMENT												
9081LWPLP	Office Furniture & Equipment		20 SQ	0	220,589	10,980	4.98%	-	10,980	4.98%	0.00%	
	GENERAL EQUIPMENT TOTAL				**220,589**	**10,980**	**4.98%**	**-**	**10,980**	**4.98%**	**0.00%**	
	WUSKWATIM POWER LIMITED PARTNERSHIP TOTAL				**1,340,488,019**	**18,975,062**	**1.42%**	**(11)**	**18,975,051**	**1.42%**	**0.00%**	
KEEYASK HYDROPOWER LIMITED PARTNERSHIP												
HYDRAULIC GENERATION												
1186A-01KHLP	Concrete Dams, Dykes and Substructures		125 R4	0			0.80%			0.80%	0.00%	Note 2
1186A-02KHLP	Embankment Dams and Dykes		125 R4	0			0.80%			0.80%	0.00%	Note 2
1186B-01KHLP	Superstructures & Support Bldg - Very Long		100 R4	0			1.00%			1.00%	0.00%	Note 2
1186B-02KHLP	Superstructures & Support Bldg - Long		75 R4	0			1.33%			1.33%	0.00%	Note 2
1186B-03KHLP	Superstructures & Support Bldg - Medium-Long		55 R3	0			1.82%			1.82%	0.00%	Note 2
1186B-04KHLP	Superstructures & Support Bldg - Medium		35 R2	0			2.86%			2.86%	0.00%	Note 2
1186B-05KHLP	Superstructures & Support Bldg - Medium-Short		25 R3	0			4.00%			4.00%	0.00%	Note 2
1186B-06KHLP	Superstructures & Support Bldg - Short		15 R2	0			6.67%			6.67%	0.00%	Note 2
1186D-01KHLP	Spillway Substructure		90 R5	0			1.11%			1.11%	0.00%	Note 2
1186D-04KHLP	Spillway Superstructure Original construction		70 R5	0			1.43%			1.43%	0.00%	Note 2
1186E-01KHLP	Water Control Support		80 R4	0			1.25%			1.25%	0.00%	Note 2
1186F-01KHLP	Roads, Grounds and Physical Site Security		50 R3	0			2.00%			2.00%	0.00%	Note 2
1186G-01KHLP	Turbine and Generator Structural and Embedments		93 S2	0			1.08%			1.08%	0.00%	Note 2
1186G-02KHLP	Turbine Runner - Fixed Blade		66 L4	0			1.52%			1.52%	0.00%	Note 2
1186G-04KHLP	Turbine Regulation		55 R4	0			1.82%			1.82%	0.00%	Note 2
1186G-05KHLP	Turbine Stationary Parts		64 R4	0			1.56%			1.56%	0.00%	Note 2
1186G-06KHLP	Generator Frames and Core		50 S4	0			2.00%			2.00%	0.00%	Note 2
1186G-07KHLP	Generator Rotor		65 R4	0			1.54%			1.54%	0.00%	Note 2
1186G-08KHLP	Generator Windings		52 S4	0			1.92%			1.92%	0.00%	Note 2
1186P-01KHLP	Generating Station Electrical Systems - High Voltage		63 R3	0			1.59%			1.59%	0.00%	Note 2
1186P-02KHLP	Generating Station Electrical Systems - Low Voltage		40 R3	0			2.50%			2.50%	0.00%	Note 2
1186Q-01KHLP	Mechanical Instrumentation, Control and Protection		55 R2.5	0			1.82%			1.82%	0.00%	Note 2
1186Q-02KHLP	Analog Instrumentation, Control and Protection		49 R4	0			2.04%			2.04%	0.00%	Note 2
1186Q-03KHLP	Digital Instrumentation, Control and Protection		25 S2	0			4.00%			4.00%	0.00%	Note 2
1186Q-04KHLP	Backup Power Systems		25 L2.5	0			4.00%			4.00%	0.00%	Note 2
1186Q-05KHLP	Cyber and Intelligence Security		10 S3	0			10.00%			10.00%	0.00%	Note 2
1186R-01KHLP	Mechanical Auxiliary Systems		63 S2	0			1.59%			1.59%	0.00%	Note 2
1186R-02KHLP	Pressure systems		54 R4	0			1.85%			1.85%	0.00%	Note 2
1186YKHLP	Operational Employment Fund		95 SQ	0			1.05%			1.05%	0.00%	Note 2
1186ZKHLP	Community Development Costs		95 SQ	0			1.05%			1.05%	0.00%	Note 2
DISTRIBUTION LINES												
4086JKHLP	Poles and Fixtures		60 S0	0			1.67%			1.67%	0.00%	Note 2
4086L-01KHLP	Overhead Conductor and Devices - Conductor		65 R1	0			1.54%			1.54%	0.00%	Note 2
4086L-02KHLP	Overhead Conductor and Devices - Insulators		40 R3	0			2.50%			2.50%	0.00%	Note 2
4086N-02KHLP	Underground Cable and Devices - XLPE, RINJ & RIPVCJ		40 R2	0			2.50%			2.50%	0.00%	Note 2
4086N-03KHLP	Underground Cable and Devices - TRXLPE		55 R2	0			1.82%			1.82%	0.00%	Note 2

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
4086Q-01KHLP	Serialized Equipment - Pole Mount - Transformers & Other		50 R3	0			2.00%			2.00%	0.00%	Note 2
4086Q-02KHLP	Serialized Equipment - Pole Mount - Reclosers		11 R1.5	0			9.09%			9.09%	0.00%	Note 2
4086SKHLP	Serialized Equipment - Pad Mount		45 R3	0			2.22%			2.22%	0.00%	Note 2
4086XKHLP	Street Lighting		50 L3	0			2.00%			2.00%	0.00%	Note 2
COMMUNICATION												
5086M-02KHLP	Telephones & Video Conferencing		15 SQ	0			6.67%			6.67%	0.00%	Note 2
GENERAL EQUIPMENT												
9086H-01KHLP	Tools, Shop & Garage Equipment - Electronic		10 SQ	0			10.00%			10.00%	0.00%	Note 2
9086H-02KHLP	Tools, Shop & Garage Equipment - Non-Electronic		15 SQ	0			6.67%			6.67%	0.00%	Note 2
9086LKHLP	Office Furniture and Equipment		20 SQ	0			5.00%			5.00%	0.00%	Note 2

Note 1 Selkirk Generating Station depreciation rates reflect current rates in use during plant decommissioning.
Selkirk GS was removed from scope of the Alliance IFRS-Compliant ASL Depreciation Study as the station has ceased operations since March 31, 2019.

Note 2 Depreciation Rate provided by Alliance Consulting Group for Keeyask Generating Station, which was placed into service after March 31, 2019.

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This is not to say that the Board is rejecting outright an eventual adoption of ELG. However, to the extent that the choice is between IFRS-compliant ASL and IFRS-compliant ELG, the Board does not currently have sufficient information upon which to make a decision. As shown in the table above, a change in methodology leads to significant long term consumer rate consequences and is a decision which the Board cannot make on an incomplete record.

While the Board considers the extrapolation study filed by Manitoba Hydro to be illustrative, and the Board accepts that additional componentization would reduce the difference between ASL and ELG, the Board does not consider the extrapolation study reliable enough to base a rate-making decision on it. As such, the Board will order Manitoba Hydro to retain the existing ASL methodology for rate-setting purposes until Directives 8 and 9 from Order 43/13 have been complied with and the Board has been provided with an IFRS-compliant depreciation study based on ASL.

Accepting Gannett Fleming's testimony that additional componentization tends to reduce the difference between ASL and ELG, the Board requests that the IFRS-compliant ASL depreciation study, if and when filed by Manitoba Hydro, be based on the minimum level of additional componentization required by IFRS, but avoid optional additional componentization. The study should also demonstrate whether and when there would be a cross-over point at which time Depreciation Expense as calculated using ELG becomes lower than that calculated using ASL. If Manitoba Hydro is able to file such a study in time for the next GRA, as well as comply with Directive 9 from Order 43/13, the Board intends to make a final disposition with respect to the appropriate long term depreciation methodology for rate-setting purposes at the hearing of that Application.

REFERENCE:

Appendix 9.9

PREAMBLE TO IR (IF ANY):

Manitoba Hydro initially indicated to the Board that it wanted to switch to ELG in its 2012/13 & 2013/14 GRA. In Order 43/13 the Board stated:

> *The Board also is concerned that not enough information has been provided to date to assess the true impact on ratepayers of a switch to Equal Life Group. As such, the Board will require Manitoba Hydro to file additional information, including a determination of depreciation rates and schedules based on the Average Service Life methodology, to provide a meaningful comparison between the two approaches. [Order 43/13 pg 18]*
>
> *The Board will require Manitoba Hydro to provide a comparison, for the next General Rate Application, of the impact on the Integrated Financial Forecast of an Average Service Life methodology (without net salvage) and an Equal Life Group methodology (without net salvage), where each of the accounting methodologies are applied to planned major capital additions in the Integrated Financial Forecast. Given the forecast to increase net plant by over $21 billion over a 20-year period, it will be important to understand the implications on ratepayers of using each approach at the next General Rate Application.*
>
> *The Board further expects Manitoba Hydro to file, as part of its next General Rate Application, additional information to support Manitoba Hydro's view that an Average Service Life methodology compliant with International Financial Reporting Standards requires increased componentization. As part of this information, the Board expects to see evidence as to what level of componentization would be required and how such level of componentization would increase Manitoba Hydro's costs, if at all. [Order 43/13 pg 18- 19]*

IT IS THEREFORE ORDERED THAT:

8. That Manitoba Hydro file updated depreciation rates and schedules based on an International Financial Reporting Standards-compliant Average Service Life methodology with the next General Rate Application.

9. That Manitoba Hydro file with the Board, with the next General Rate Application, a chart showing a comparison of the impact on its Integrated Financial Forecast (i.e. 'Budget') of asset depreciation pursuant to the Average Service Life methodology (without net salvage) and the Equal Life Group methodology (without net salvage), applying both methodologies to all planned major capital additions.

Accepting Gannett Fleming's testimony that additional componentization tends to reduce the difference between ASL and ELG, the Board requests that the IFRS compliant ASL depreciation study, if and when filed by Manitoba Hydro, be based on the minimum level of additional componentization required by IFRS, but avoid optional additional componentization. The study should also demonstrate whether and when there would be a cross-over point at which time Depreciation Expense as calculated using ELG becomes lower than that calculated using ASL. [Order 73/15 page 46]

Manitoba Hydro notes the study demonstrated that 410 additional components are required to meet IFRS depreciation accuracy standards using an ASL methodology.

QUESTION:

a) Please explain how Manitoba Hydro satisfied itself that the level of componentization included in the study was based on a minimum level required under IFRS.
b) Please indicate to what extent MH included discussions with its external auditors or other accounting advisors on the requirements under IFRS for componentization for an IFRS-compliant depreciation study.
c) Provide the authority on which MH relies to create the "Change in Depreciation Method" deferral account;

d) Provide continuity schedules for each deferral account related to depreciation matters;
e) Detail the current use of Net Movement in respect to each of the matters related to depreciation;
f) Provide MH's narrative and revised Appendix 4.1 that reflects only:
   i. MH continuing to use CGAAP-ASL for the future with no deferral account for any change in depreciation methods;
   ii. MH switching to IFRS-ASL for the future – including any changes in the regulatory deferral account for change to depreciation;
   iii. Confirm that Appendix 4.1 (Amended) uses IFRS-ELG with the difference between that method and CGAAP-ASL being captured in a deferral account and included in the Net Movement line item.

RESPONSE:

a) IFRS standards do not include specific guidance on the number of components required under an IFRS-compliant ASL method. Therefore, Manitoba Hydro hired a depreciation expert, Alliance Consulting Group to complete a full IFRS-compliant ASL study to recommend the additional componentization required. Manitoba Hydro satisfied itself that the level of componentization in the study was reasonable as Alliance Consulting followed a defined approach. During the course of the study, Alliance's initial recommendations for additional componentization were refined based on the findings from the detailed analysis. Recommendations were updated to combine asset components of immaterial or insignificant results. As a result, management was satisfied that the consultant recommended a reasonable level of componentization.

b) Manitoba Hydro engaged an expert depreciation consultant to complete the IFRS-compliant ASL depreciation study as required by the PUB in Order 43/13, Directives 8 and 9. Manitoba Hydro has not recommended the implementation of IFRS-compliant ASL and therefore, has not engaged or discussed the adequacy of the recommended level of componentization from the IFRS-compliant depreciation study with its external auditor. Manitoba Hydro is not utilizing IFRS-compliant ASL for financial reporting purposes and as such the componentization has not been assessed as part of an audit engagement.

c) Manitoba Hydro's accounting treatment was based on the following communications with the PUB:

- On February 25, 2016 Manitoba Hydro sent a letter (Attachment 1) requesting the PUB to confirm that the difference between depreciation expense calculated for financial reporting purposes based on IFRS-compliant Equal Life Group depreciation rates and depreciation expense calculated for rate setting purposes based on CGAAP ASL depreciation rates (excluding negative salvage), be recorded as a regulated liability along with a corresponding regulatory asset and was consistent with the intent of the findings in Order 73/15.
- On April 4, 2016 the PUB replied (Attachment 2) and stated that "At the outset, the Board clarifies that its mandate with respect to prescribing accounting methods is limited to determining the appropriate accounting for rate-setting purposes, but not for financial reporting purposes. While in the Board's view it would be preferable for Manitoba Hydro's financial statements to be consistent with the Board approved rate-setting methodology, the Board cannot provide the requested guidance as to how Manitoba Hydro should prepare its financial statement for financial reporting purposes. As such, both Manitoba Hydro and Centra should seek the appropriate guidance from their internal and external accounting advisors with respect to options and obligations under IFRS to comply with the directives of Board Order 73/15.

Based on the direction provided by the PUB on April 4, 2016, Manitoba Hydro sought guidance from accounting advisors and determined that the Corporation would record the difference between the depreciation methods in a regulatory deferral (Change in deprecation method). This accounting treatment was reviewed by Manitoba Hydro's auditor in conjunction with the audit of the 2015/16 financial statements for which an unqualified opinion was issued.

d) Figure 1 below provides a continuity schedule for the deferral accounts related to depreciation matters (Change in depreciation method, Loss on retirement or disposal of asset and IFRS phase-in).

Figure 1 Continuity Schedule Depreciation Related Regulatory Deferral Accounts

Depreciation Method Regulatory Deferral Accounts
Manitoba Hydro Proposed Treatment - Amended Finanical Forecast Scenario

(in Millions)	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Change in Depreciation Method	$ 288	$ 343	$ 359	$ 347	$ 336	$ 324	$ 312	$ 301	$ 289	$ 277
Loss on Retirement or Disposal of Assets	67	70	70	67	64	61	59	56	53	50
IFRS Depreciation Phase-in	-	-	40	103	159	207	249	284	313	335
Opening balance - depreciation method deferrals	355	413	469	517	559	592	620	641	655	662
Change in Depreciation Method	55	23	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	3	1	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	-	41	65	60	55	50	45	40	35	30
Additions - depreciation method deferrals	58	65	65	60	55	50	45	40	35	30
Change in Depreciation Method	-	(7)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Loss on Retirement or Disposal of Assets	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	-	(0)	(2)	(5)	(6)	(8)	(10)	(11)	(12)	(14)
Amortization - depreciation method deferrals	-	(9)	(17)	(20)	(21)	(23)	(25)	(26)	(27)	(29)
Change in Depreciation Method	343	359	347	336	324	312	301	289	277	265
Loss on Retirement or Disposal of Assets	70	70	67	64	61	59	56	53	50	48
IFRS Depreciation Phase-in	-	40	103	159	207	249	284	313	335	352
Closing balance - depreciation method deferrals	$ 413	$ 469	$ 517	$ 559	$ 592	$ 620	$ 641	$ 655	$ 662	$ 665

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
Change in Depreciation Method	$ 265	$ 254	$ 242	$ 230	$ 218	$ 207	$ 195	$ 183	$ 172	$ 160
Loss on Retirement or Disposal of Assets	48	45	42	39	37	34	31	28	26	23
IFRS Depreciation Phase-in	352	362	367	367	360	349	332	316	299	283
Opening balance - depreciation method deferrals	665	661	651	636	615	590	558	527	497	466
Change in Depreciation Method	-	-	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	-	-	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	25	20	15	10	5	-	-	-	-	-
Additions - depreciation method deferrals	25	20	15	10	5	-	-	-	-	-
Change in Depreciation Method	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Loss on Retirement or Disposal of Assets	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	(14)	(15)	(16)	(16)	(16)	(17)	(17)	(17)	(17)	(17)
Amortization - depreciation method deferrals	(29)	(30)	(31)	(31)	(31)	(32)	(32)	(32)	(32)	(32)
Change in Depreciation Method	254	242	230	218	207	195	183	172	160	148
Loss on Retirement or Disposal of Assets	45	42	39	37	34	31	28	26	23	20
IFRS Depreciation Phase-in	362	367	367	360	349	332	316	299	283	266
Closing balance - depreciation method deferrals	$ 661	$ 651	$ 636	$ 615	$ 590	$ 558	$ 527	$ 497	$ 466	$ 434

e) Please see Tab 10 MFR 16 which details the current use of Net Movement in respect to each of the matters related to depreciation, Change in depreciation method and Loss on retirement of disposition of assets.

f) Below are Manitoba Hydro's responses to the following scenarios:

i. It is not possible for Manitoba Hydro to continue to use CGAAP-ASL for future rate setting purposes without a regulatory deferral account as Manitoba Hydro's financial statements would not be in compliance with IFRS.

ii. If Manitoba Hydro was ordered to switch to IFRS-ASL for rate setting purposes this would also necessitate application of this change for financial reporting purposes, as

the different level of componentization would make it impracticable to maintain separate asset accounting records for financial reporting and regulatory reporting purposes. Please see Appendix 4.3 section 1.4.9 which discusses the effort required to adopt an IFRS-compliant ASL method for rate setting purposes. This change would result in the cessation of the Change in depreciation methodology deferral and the Loss on retirement or disposal of assets deferral and amortization periods for these accounts would be requested. Please refer to PUB/MH I-111 b) ii) which provides an alternative scenario based on IFRS-compliant ASL.

iii. It is confirmed that Appendix 4.1 (Amended) uses IFRS-ELG with the difference between that method and CGAAP-ASL being captured in a deferral account and included in the Net Movement line item.

Manitoba Hydro

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February 25, 2016

Mr. D. Christle
Secretary and Executive Director
Public Utilities Board
400-330 Portage Avenue
Winnipeg, Manitoba
R3C 0C4

Dear Mr. Christle:

RE: MANITOBA HYDRO - ACCOUNTING TREATMENT OF PUB FINDINGS ON DEPRECIATION AND OVERHEADS

In advance of the closing of its financial statements for the 2015/16 fiscal year, Manitoba Hydro is requesting confirmation from the Public Utilities Board of Manitoba ("PUB") that the Corporation's proposed accounting treatment as outlined below is consistent with the intent of the findings in Order 73/15 with respect to depreciation and overheads ineligible for capitalization.

On July 24, 2015, the PUB issued Order 73/15 with respect to Manitoba Hydro's 2015/16 & 2016/17 Electric General Rate Application ("GRA"). In that Order at page 46, the PUB found that Manitoba Hydro should retain its existing Canadian Generally Accepted Accounting Principles ("CGAAP") Average Service Life ("ASL") methodology for rate-setting purposes until Directives 8 and 9 from Order 43/13 have been complied with and the PUB has been provided with an IFRS-compliant depreciation study based on ASL. At page 45 of Order 73/15, the PUB accepted Manitoba Hydro's proposal to remove negative salvage from its depreciation rates effective April 1, 2015.

Additionally, at pages 35-36 of Order 73/15, the PUB noted that overheads no longer eligible for capitalization have increased since the 2012/13 & 2013/14 GRA and the PUB indicated that the additional $20 million of ineligible overheads should continue to be capitalized for 2015/16 for rate-setting purposes.

Consistent with the accounting treatment proposed by Manitoba Hydro and confirmed by the PUB for the Demand Side Management Deferral Account established in Order 43/13, Manitoba Hydro's proposed accounting treatment for the 2015/16 fiscal year is as follows:

1. Record the difference between depreciation expense calculated for financial reporting purposes based on International Financial Reporting Standards ("IFRS") compliant

Equal Life Group depreciation rates and depreciation expense calculated for rate-setting purposes based on CGAAP ASL depreciation rates (excluding negative salvage), as a regulated liability along with a corresponding regulated asset; and,

2. Record the difference between Operating & Administrative ("O&A") expense calculated for financial reporting purposes and O&A expense excluding the additional overheads to be capitalized (i.e. $20 million), as a regulated liability along with a corresponding regulated asset.

Manitoba Hydro is respectfully seeking the PUB's confirmation that its proposed accounting treatment is consistent with the intent of the findings in Order 73/15, which will allow Manitoba Hydro to close its financial statements for the 2015/16 fiscal year. A review of the disposition of the proposed regulated liability and asset balances can be considered at the next GRA.

Given that the amounts in question are material to the financial statements and that the Corporation is preparing for its year-end audit process, Manitoba Hydro respectfully requests that confirmation be provided by the PUB by March 24, 2016.

Should you have any questions with respect to the forgoing, please do not hesitate to contact the writer at 204-360-3633 or Shannon Gregorashuk at 204-360-4270.

Yours truly,

MANITOBA HYDRO LAW DIVISION
Per:

ODETTE FERNANDES
Barrister & Solicitor

Public Utilities Board | Régie des services publics

April 4, 2016

Manitoba Hydro
Legal Department
22nd Floor, 360 Portage Avenue
Winnipeg, MB R3C 2P4

Attention: Odette Fernandes

VIA EMAIL

Dear Madam:

Re: Manitoba Hydro
March 10, 2016 Request for Accounting Clarification

The Board is in receipt of Manitoba Hydro's correspondence of February 25, 2016 (a copy of which is attached) seeking the Public Utilities Board's ("Board") clarification with respect to the 2015/16 fiscal year treatment of various accounting matters in light of Manitoba Hydro's implementation of International Financial Reporting Standards ("IFRS") and the Board Directives issued in Order 73/15.

Order 73/15 stated, in part, as follows:

8. The removal of net salvage from 2015/16 depreciation rates in the 2014 Depreciation Study **BE AND IS HEREBY APPROVED**.

9. The incorporation of the use of the Equal Life Group methodology to set depreciation rates in 2015/16 as set out in the 2014 Depreciation Study **BE AND IS HEREBY DENIED**.

10. Manitoba Hydro is to continue to use its existing Average Service Life Methodology for calculating depreciation rates for rate-setting purposes until the Board is satisfied that a change in methodology is warranted.

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The Board further stated that:

> At the last General Rate Application (GRA), the Board agreed that the accounting changes were appropriate for 2012/13 and 2013/14 and that no further accounting changes be made for rate-setting purposes until the Board had received an IFRS status update. The Board understood that with the adoption of IFRS, additional overhead costs of $36 million per year would no longer be capitalized. The quantum of those costs has increased materially in Manitoba Hydro's IFRS Status Update, by $20 million per year.
>
> The Board understands that Manitoba Hydro has made changes in 2012/13 to its integrated cost allocation methodology and overhead rates in its compliance with IFRS. The increases in overhead costs have been primarily attributed to changes in capital activity and overhead allocations. The Board will not accept the higher level of OM&A costs requested in this application but will allow $36 million of additional costs to be expensed for 2015/16 as indicated in the last GRA. The remaining administrative costs will continue to be capitalized as per existing practices.

In its February 25, 2016 correspondence, Manitoba Hydro seeks confirmation from the Board that the following proposed accounting treatment is consistent with the intent of the findings in Order 73/15:

1. Record the difference between depreciation expense calculated for financial reporting purposes based on International Financial Reporting Standards ("IFRS") compliant Equal Life Group depreciation rates and depreciation expense calculated for rate-setting purposes based on CGAAP ASL depreciation rates (excluding negative salvage), as a regulated liability along with a corresponding regulatory asset.

2. Record the difference between Operating & Administrative ("O&A") expense calculated for financial reporting purposes and O&A expense excluding the additional overheads to be capitalized (i.e. $20 million), as a regulated liability along with a corresponding regulated asset.

At the outset, the Board clarifies that its mandate with respect to prescribing accounting methods is limited to determining the appropriate accounting for rate-setting purposes, but not for financial reporting purposes. While in the Board's view, it would be preferable for Manitoba Hydro's financial statements to be consistent with the Board-approved rate-setting methodology, the Board cannot provide the requested guidance as to how Manitoba Hydro should prepare its financial statements for financial reporting purposes. As such, both Manitoba Hydro and Centra should seek the appropriate guidance from their internal and external accounting advisors with respect to their options and obligations under IFRS to comply with the directives of Board Order 73/15. This should include a consideration of whether there is any risk of the utility having to re-state its financial statements in the future if the financial reporting methodology does not align with the Board-approved rate-setting methodology.

With respect to accounting adjustments used in the preparation of financial forecasts for rate setting purposes, the Board does not understand Manitoba Hydro's proposed accounting treatment to be consistent with the Board's intent in Order 73/15. For rate-setting purposes, the Board considers Attachment 46 Scenario 2 filed by Manitoba Hydro in its recent application for interim April 1, 2016 rates to be consistent with intent of Order 73/15.

This matter will be further reviewed at the next Manitoba Hydro General Rate Application. For financial reporting purposes, the Board encourages Manitoba Hydro to seek appropriate accounting advice as to the options and to determine how the Board's previous rulings should be reflected in the Utility's 2015/16 fiscal year financial statements.

Yours truly,

"Original Signed By"

Kurt Simonsen
Associate Secretary

Attachment

c.c. Interveners of Record

REFERENCE:

Tab 4, Appendix 4.3, page 5, and Tab 9, Appendix 9.11.

PREAMBLE TO IR (IF ANY):

Manitoba Hydro has completed an IFRS-Compliant ASL Study and through the comparison of IFRS-compliant ASL to ELG the company has demonstrated that, regardless of the depreciation method used under IFRS, it is the degree of granularity required that results in the timing difference in total depreciation expense with CGAAP ASL. Since there is no significant difference in total depreciation expense between the ELG and IFRS-compliant ASL methods for all years in the long-term forecast, Manitoba Hydro is recommending IFRS ELG as the method for determining depreciation.

QUESTION:

a) Please provide MB Hydro's accounting analysis, including all references to the specific International Financial Reporting Standards (IFRS) that states ELG is IFRS compliant whereas ASL is only IFRS compliant to the extent additional componentization is performed.
b) Please provide Alliance's accounting analysis, including all references to the specific International Financial Reporting Standards that states ELG is IFRS compliant whereas ASL is only IFRS compliant to the extent additional componentization is performed.
c) Please confirm that the author of Alliance's "IFRS-Compliant ASL Book Depreciation Accrual Rate Study" is not a designated accountant or a Canadian Chartered Professional Accountant. If not confirmed, please explain.
d) Please provide a detailed listing of all education, training and teaching that Alliance's expert has in the areas of IFRS, accounting for gains and losses under IFRS, accounting for depreciation expense under IFRS, and componentization of assets under IFRS.
e) Has MB Hydro obtained an independent expert opinion supporting its interpretation that its ELG approach to depreciating assets is IFRS compliant, and why others may not be IFRS compliant? If yes, please provide that opinion. If no, why not?
f) Has MB Hydro, or any of its experts, studied whether other Canadian entities with mass property assets uniformly apply ELG as opposed to ASL or some other means of depreciating assets? If yes, please provide the results of that study. If no, why not?

g) Please specifically refer to where in IAS 16, or another IFRS, the level of required componentization is specifically defined.

h) Please confirm that Alliance's report relied on the guidance regarding the determination of depreciation as set out in IAS 16.43 (and other similar guidance), which states: "Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately." If confirmed, please fully explain how this guidance was taken into consideration by Alliance, including how Alliance defines "significant". If not confirmed, please explain.

i) Having regard for the individual components proposed by Alliance, please prepare a schedule of each component that shows the following:
   i. The original cost attributable to the component and the percentage of this amount relative to the total;
   ii. The depreciation rate for the component; and
   iii. The calculated depreciation expense for the component in the test period, and the percentage of this amount relative to both total depreciation expense and total applied for revenue requirement.

j) Referring to the information provided in (i), GSS/GSM asks Alliance to specifically comment on the significance of each component to the overall calculated depreciation expense and provide its expert opinion on why this level of componentization complies with IFRS. As support for the opinion, please also provide quantitative evidence supporting that the additional level of componentization will result in a significant change in depreciation given that depreciation is an estimate.

k) Please provide any evidence in MB Hydro or its experts' possession that demonstrates the level of componentization being proposed in the "IFRS-Compliant ASL Book Depreciation Accrual Rate Study" has been applied by any other Canadian or international entity that complies with IFRS.

RATIONALE FOR QUESTION:

Given the materiality of the proposed costs, GSS/GSM requests additional clarity regarding MB Hydro and Alliance's basis for determining an "IFRS-Compliant ASL Book Depreciation Accrual Rate Study".

RESPONSE:

a) The following response was provided by Manitoba Hydro:

Please refer to the response provided by Alliance Consulting Group (Alliance) in part b) below as Manitoba Hydro's response would not differ. Please also refer to the response to PUB/MH I-109 for further information and an example comparing ALG and ELG procedures for depreciation.

b) The following response was provided by Alliance Consulting Group (Alliance):

IAS 16.50 states "the depreciable amount of an asset shall be allocated on a systematic basis over its useful life." If a group of assets consists of assets with a wide range of lives, the timing of depreciation is not aligned accurately with the useful life of the shorter- or longer-lived assets within the group. ELG separates assets into "equal life groups" and would tend to better mirror the IFRS guidance. The ALG procedure does not separate assets into equal life groups but relies on the average life for all assets within the group. In order to more closely align ALG with the IFRS standards, additional componentization is necessary to create more homogeneous life groups in order for the assets within the group to reflect the life assigned to the group instead of an average that does not recognize assets with shorter and longer projected lives.

c) The following response was provided by Alliance:

Confirmed.

d) The following response was provided by Alliance:

Please refer to PUB/MH I-140 Attachment 2 which provides a resume and biography for Dane A. Watson. Additionally, Mr. Watson served on a project with AGA/EEI related to the Electric and Gas industries response to the potential implementation of IFRS in the US.

e) The following response was provided by Manitoba Hydro:

Please refer to Manitoba Hydro's International Financial Reporting Standards (IFRS) Status Update Report as at April 30, 2012 (Appendix 5.5 from the 2012/13 & 2013/14 GRA). Sections 2.3 and 2.4 provide an overview of the external consulting engagements and auditor involvement with Manitoba Hydro's transition to IFRS.

Manitoba Hydro engaged KPMG as the primary consultant to provide assistance with transitioning to IFRS. Manitoba Hydro also engaged Gannett Fleming Inc. to provide technical expertise on the application of IFRS as it applied to Property Plant & Equipment including: IFRS componentization requirements, IFRS compliant depreciation rates and related policies and practices applicable to each asset group and development of historic cost and accumulated depreciation for the new asset groups.

Ernst & Young were Manitoba Hydro's auditor during the IFRS transition, provided advice, and concurred with accounting changes implemented. In addition, Ernst & Young issued unmodified opinions in the auditors' reports on the consolidated financial statements for the years March 31, 2015 – March 31, 2017.

KPMG, Manitoba Hydro's current auditor provide an opinion on whether the financial statements as a whole are presented fairly, in all material respects, in accordance with the applicable financial reporting framework. The auditors have issued unmodified opinions in the auditors' reports on the consolidated financial statements since March 31, 2018.

Manitoba Hydro did not engage consultants to opine on methods that would not be IFRS compliant as Manitoba Hydro was required to comply with IFRS for financial reporting in order to obtain an unmodified audit opinion.

Please also refer to Manitoba Hydro's IFRS Status Update Report as at October 31, 2014 (Appendix 5.4 from the 2014/15 & 2015/16 GRA). Sections 2.3 and 2.4 provide an overview of the external consulting engagements and auditor involvement with Manitoba Hydro's transition to IFRS.

f) The following response was provided by Manitoba Hydro:

As identified in the Electricity Canada survey results (PUB/MH I-118) ten of the eleven Canadian utilities that responded to the survey report under IFRS accounting standards. The survey also identified that there is a wide variation in the procedure (ELG, ALG, item/individual unit and vintage group) used for calculating depreciation.

g) The following response was provided by Manitoba Hydro:

IAS 16 does not specifically define the level of required componentization. The standard provides guidance which requires interpretation. Please refer to the response to PUB/MH I-109 which explains why ALG requires more sub-componentization than ELG.

h) The following response was provided by Alliance:

Alliance confirms that IAS 16.43 was relied on when determining the level of componentization used to complete the Manitoba Hydro ALG depreciation study. There is no rigid criterion to define significant. Professional judgement was used by Alliance in the study. Please refer to the response provided in PUB/MH I-139 b).

i) The following response was provided by Manitoba Hydro:

IFRS-compliant ASL based depreciation does not form part of the revenue requirement as IFRS-compliant ASL depreciation rates were not applied in the development of the long-term financial forecast as Manitoba Hydro is not recommending IFRS-compliant ASL.

Please refer to Attachment 1 for a schedule showing the following information based on the IFRS-compliant ASL Depreciation Study prepared by Alliance Consulting Group (Appendix 9.11):

- Original cost and percentage of total cost
- Depreciation rate
- Annual accrual amount and percentage of total annual accrual

Manitoba Hydro is not able to provide the calculated depreciation expense by IFRS-compliant ASL component for the test period. As discussed in Appendix 9.12, the IFRS-compliant ASL depreciation study and associated forecast scenario were developed in response to Directive 9 of Order 43/13, to provide the Board with a comparison of IFRS-compliant ASL vs ELG for the Board's use in their determining whether to accept ELG depreciation for rate setting purposes. As indicated in Appendix 9.12 section 1.2.1, numerous assumptions and estimates were required to apply the IFRS-compliant ASL depreciation rates to Manitoba Hydro's in-service assets and planned additions, as IFRS-compliant ASL componentization has not been implemented into Manitoba Hydro's financial systems.

For further information on the impacts of applying IFRS-compliant ASL depreciation rates, please refer to the following responses:

- PUB/MH I-111 b) ii) provides a statement of operations for a forecast scenario reflecting use of IFRS-compliant ASL depreciation rates.
- PUB/MH I-81 d) provides a breakdown of depreciation expense by asset class based on the application of IFRS-compliant ASL depreciation rates.
- MIPUG/MH I-91 m) provides the calculation of the IFRS-compliant ASL composite depreciation rates which were applied to existing asset components to determine depreciation expense for the IFRS-Compliant ASL forecast scenario.

j) The following response was provided by Alliance:
Please see response to MIPUG/MH I-91 h) for the process used to determine additional componentization. Please see response to part h) above that references PUB/MH I-139 b) discussing professional judgement used to determine materiality and significance used in the Alliance study. The attachment provided in response to part i) above includes the percentage of total plant investment and percentage of total IFRS ASL annual accrual amount for each component. Regarding the data provided in part i) above, the level of componentization used in the Alliance study complies with IFRS by more accurately allocating depreciation expense over the useful life of a group of assets. This level of componentization changes the timing of depreciation expense over the life of the assets, not the total amount of depreciation expense.

k) The following response was provided by Manitoba Hydro:

Manitoba Hydro does not have any direct evidence in its possession that demonstrates that the level of componentization being proposed in the Manitoba Hydro IFRS-compliant ASL Depreciation Study has been applied by any other Canadian or international entity that complies with IFRS. Canadian and International utilities are diverse and there is a wide variation in the depreciation procedures used which results in different levels of componentization. As identified in the Electricity Canada survey eleven of the twelve Canadian utilities that responded to the survey report under IFRS accounting standards. The survey also identified that there is a wide variation in the procedure (ELG, ALG, item/individual unit and vintage group) used for calculating depreciation. There is also no Canadian or International uniform system of accounts for electric operations that an organization could use to benchmark the level of componentization against therefore, Manitoba Hydro relies on its depreciation consultants for determination of the appropriate level of componentization.

The following response was provided by Concentric Advisors ULC:

Electric utilities in the United States are required to follow the Uniform System of Accounts as prescribed by the Federal Energy and Regulatory Commission (FERC). Very few utilities in the United States report financial statements in compliance with IFRS, and therefore the requirement for increased levels of componentization do not exist. As such, there is a large amount of consistency in the account structure used among virtually all electric utilities in the U.S. In contrast, Canadian electric utilities create accounts based on a number of factors – the regulatory environment that they serve within, the needs of the operations and management team, the increased componentization requirements of the accounting standards being followed, among others. Manitoba Hydro's peers have varying levels of componentization as follows:

- BC Hydro has 329 accounts covering generation, transmission, distribution and general plant functions.
- NALCOR has 136 accounts.
- Ontario Power Generation has 63 accounts related to its hydroelectric generating facilities and directly related common plant, and 74 accounts related to its nuclear

generation plants and directly attributable common plant assets for a total of 137 accounts.

- SaskPower has approximately 130 accounts covering its generation, transmission, distribution and common asset accounts. It should also be noted that SaskPower follows a location life accounting concept for its generation assets, and therefore a number of the 43 generation accounts are sub-componentized into one of 10 differing generation sites, resulting in well over 200 accounts specific to generation assets.
- New Brunswick Power has 158 accounts related to electric distribution and transmission assets.

Manitoba Hydro Consolidated Electric Operations
Calculated Annual Depreciation Accrual Rates
For Electric Plant in Service as at March 31, 2019
Straight-Line Method with the Average Life Group Procedure, Applied Using the Remaining-Life Technique

Acct No	Account Description	Plant Investment at March 31, 2019	Percentage of Total Plant Investment at March 31, 2019	IFRS-ASL Depreciation Rate (Alliance)	IFRS-ASL Annual Accrual Amount (Alliance)	Percentage of Total IFRS-ASL Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MANITOBA HYDRO						
GREAT FALLS						
1105A-01	Concrete Dams, Dykes and Substructures	1,911,200	0.01%	1.26%	24,165	0.01%
1105A-02	Embankment Dams and Dykes	12,539,833	0.06%	1.25%	156,173	0.04%
1105A-05	Concrete Dams, Dykes and Substructures Refurbishment	15,628,101	0.07%	1.92%	300,499	0.07%
1105A-06	Embankment Dams and Dykes Refurbishments	4,892,287	0.02%	4.11%	200,961	0.05%
1105A-10	Embankment Dams and Dykes Additions for Sustainment	4,854,884	0.02%	6.15%	298,613	0.07%
1105B-01	Superstructures & Support Bldg - Very Long	302,901	0.00%	1.22%	3,694	0.00%
1105B-02	Superstructures & Support Bldg - Long	441,303	0.00%	2.97%	13,124	0.00%
1105B-03	Superstructures & Support Bldg - Medium-Long	3,363,271	0.02%	2.17%	72,933	0.02%
1105B-04	Superstructures & Support Bldg - Medium	3,323,375	0.02%	3.25%	107,934	0.02%
1105B-05	Superstructures & Support Bldg - Medium-Short	1,135,177	0.01%	5.58%	63,318	0.01%
1105B-06	Superstructures & Support Bldg - Short	426,588	0.00%	12.93%	55,151	0.01%
1105D-01	Spillway Substructure	21,434	0.00%	1.11%	238	0.00%
1105D-03	Spillway Additions for Sustainment	5,926	0.00%	4.71%	279	0.00%
1105D-02	Spillway Refurbishment	959,831	0.00%	1.52%	14,629	0.00%
1105D-04	Spillway Superstructure Original construction	29,421	0.00%	20.20%	5,942	0.00%
1105D-05	Spillway Superstructure Subsequent modifications	78,169	0.00%	2.56%	2,002	0.00%
1105E-01	Water Control Support	13,113,310	0.06%	1.86%	244,415	0.06%
1105E-02	Water Control Support Additions for Sustainment	13,107,960	0.06%	2.36%	309,254	0.07%
1105F-01	Roads, Grounds and Physical Site Security	1,950,310	0.01%	2.25%	43,905	0.01%
1105G-01	Turbine and Generator Structural and Embedments	3,397,471	0.02%	1.72%	58,461	0.01%
1105G-02	Turbine Runner - Fixed Blade	23,806,937	0.11%	2.11%	501,291	0.11%
1105G-04	Turbine Regulation	15,660,627	0.07%	2.19%	342,694	0.08%
1105G-05	Turbine Stationary Parts	9,542,519	0.04%	2.11%	201,669	0.05%
1105G-06	Generator Frames and Core	16,191,382	0.07%	2.25%	364,614	0.08%
1105G-07	Generator Rotor	2,007,731	0.01%	1.85%	37,200	0.01%
1105G-08	Generator Windings	4,097,916	0.02%	2.10%	85,947	0.02%
1105P-01	Generating Station Electrical Systems - High Voltage	12,909,987	0.06%	1.94%	249,993	0.06%
1105P-02	Generating Station Electrical Systems - Low Voltage	4,747,888	0.02%	2.06%	97,636	0.02%
1105Q-01	Mechanical Instrumentation, Control and Protection	2,760,302	0.01%	2.43%	67,018	0.02%
1105Q-02	Analog Instrumentation, Control and Protection	2,038,696	0.01%	1.80%	36,742	0.01%
1105Q-03	Digital Instrumentation, Control and Protection	21,661,795	0.10%	3.35%	725,381	0.17%
1105Q-04	Backup Power Systems	195,916	0.00%	3.48%	6,809	0.00%
1105Q-05	Cyber and Intelligence Security	2,050,918	0.01%	8.33%	170,770	0.04%
1105R-01	Mechanical Auxiliary Systems	9,912,536	0.05%	1.75%	173,305	0.04%
1105R-02	Pressure systems	1,819,174	0.01%	1.86%	33,870	0.01%
1105R-03	Tools and test equipment	108,496	0.00%	5.00%	5,427	0.00%
	GREAT FALLS SUBTOTAL	210,995,570	0.96%	2.41%	5,076,054	1.16%
	Retired Fully Amortized Plant	758,607	0.00%			0.00%
	GREAT FALLS TOTAL	**211,754,177**	**0.96%**	**2.41%**	**5,076,054**	**1.16%**
POINTE DU BOIS						
1110A-01	Concrete Dams, Dykes and Substructures	174,465	0.00%	1.39%	2,420	0.00%
1110A-02	Embankment Dams and Dykes	58,155	0.00%	1.39%	807	0.00%
1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	1,183,596	0.01%	2.21%	26,177	0.01%
1110A-06	Embankment Dams and Dykes Refurbishments	202,778	0.00%	0.48%	974	0.00%
1110A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	1,765,150	0.01%	0.81%	14,312	0.00%
1110B-01	Superstructures & Support Bldg - Very Long	6,979	0.00%	1.39%	97	0.00%
1110B-02	Superstructures & Support Bldg - Long	129,147	0.00%	1.73%	2,230	0.00%
1110B-03	Superstructures & Support Bldg - Medium-Long	1,168,712	0.01%	2.19%	25,636	0.01%
1110B-04	Superstructures & Support Bldg - Medium	3,527,186	0.02%	2.22%	78,206	0.02%
1110B-05	Superstructures & Support Bldg - Medium-Short	2,638,086	0.01%	3.63%	95,650	0.02%
1110B-06	Superstructures & Support Bldg - Short	610,968	0.00%	3.75%	22,924	0.01%
1110D-02	Spillway Refurbishment	142,469	0.00%	2.18%	3,107	0.00%
1110E-01	Water Control Support	733,122	0.00%	2.29%	16,788	0.00%

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Acct No	Account Description	Plant Investment at March 31, 2019	Percentage of Total Plant Investment at March 31, 2019	IFRS-ASL Depreciation Rate (Alliance)	IFRS-ASL Annual Accrual Amount (Alliance)	Percentage of Total IFRS-ASL Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1110F-01	Roads, Grounds and Physical Site Security	1,481,524	0.01%	2.29%	33,870	0.01%
1110G-01	Turbine and Generator Structural and Embedments	752,831	0.00%	1.23%	9,227	0.00%
1110G-02	Turbine Runner - Fixed Blade	43,280,798	0.20%	2.02%	872,821	0.20%
1110G-04	Turbine Regulation	3,215,897	0.01%	1.73%	55,699	0.01%
1110G-05	Turbine Stationary Parts	3,480,389	0.02%	1.65%	57,289	0.01%
1110G-06	Generator Frames and Core	1,010,297	0.00%	1.97%	19,861	0.00%
1110G-07	Generator Rotor	303,637	0.00%	1.23%	3,720	0.00%
1110G-08	Generator Windings	4,953,963	0.02%	1.79%	88,669	0.02%
1110L-01	GS Licensing - No Subcomponents	185,103	0.00%	1.91%	3,529	0.00%
1110P-01	Generating Station Electrical Systems - High Voltage	7,133,827	0.03%	1.71%	121,951	0.03%
1110P-02	Generating Station Electrical Systems - Low Voltage	2,225,695	0.01%	1.90%	42,296	0.01%
1110Q-01	Mechanical Instrumentation, Control and Protection	261,220	0.00%	2.04%	5,330	0.00%
1110Q-02	Analog Instrumentation, Control and Protection	13,757	0.00%	1.00%	138	0.00%
1110Q-03	Digital Instrumentation, Control and Protection	900,984	0.00%	3.71%	33,445	0.01%
1110Q-04	Backup Power Systems	649,565	0.00%	2.87%	18,630	0.00%
1110Q-05	Cyber and Intelligence Security	1,287,653	0.01%	10.00%	128,825	0.03%
1110R-01	Mechanical Auxiliary Systems	5,035,410	0.02%	2.10%	105,781	0.02%
1110R-02	Pressure systems	445,860	0.00%	1.94%	8,637	0.00%
	POINTE DU BOIS TOTAL	**88,959,223**	**0.40%**	**2.13%**	**1,899,045**	**0.43%**
POINTE DU BOIS NEW SPILLWAY						
1111A-02	Embankment Dams and Dykes	96,809,302	0.44%	0.83%	801,961	0.18%
1111B-02	Superstructures & Support Bldg - Long	1,472,065	0.01%	1.36%	20,086	0.00%
1111B-03	Superstructures & Support Bldg - Medium-Long	1,050,665	0.00%	1.85%	19,421	0.00%
1111B-04	Superstructures & Support Bldg - Medium	1,319,783	0.01%	2.99%	39,494	0.01%
1111B-05	Superstructures & Support Bldg - Medium-Short	812,174	0.00%	4.31%	35,005	0.01%
1111B-06	Superstructures & Support Bldg - Short	558,370	0.00%	7.52%	41,984	0.01%
1111D-01	Spillway Substructure	240,191,309	1.09%	1.10%	2,637,138	0.60%
1111D-04	Spillway Superstructure Original construction	102,939,133	0.47%	1.41%	1,447,796	0.33%
1111E-01	Water Control Support	97,062,968	0.44%	1.23%	1,190,327	0.27%
1111F-01	Roads, Grounds and Physical Site Security	26,863,202	0.12%	1.91%	512,677	0.12%
1111P-02	Generating Station Electrical Systems - Low Voltage	2,862,890	0.01%	2.56%	73,219	0.02%
1111Q-02	Analog Instrumentation, Control and Protection	539,264	0.00%	1.81%	9,742	0.00%
	POINTE DU BOIS NEW SPILLWAY TOTAL	**572,481,125**	**2.60%**	**1.19%**	**6,828,850**	**1.55%**
SEVEN SISTERS						
1115A-01	Concrete Dams, Dykes and Substructures	9,831,610	0.04%	0.64%	63,257	0.01%
1115A-02	Embankment Dams and Dykes	5,735,210	0.03%	0.90%	51,530	0.01%
1115A-05	Concrete Dams, Dykes and Substructures Refurbishment	23,270,259	0.11%	1.33%	308,532	0.07%
1115A-06	Embankment Dams and Dykes Refurbishments	2,532,721	0.01%	2.53%	64,008	0.01%
1115A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	1,512,626	0.01%	3.34%	50,562	0.01%
1115A-10	Embankment Dams and Dykes Additions for Sustainment	3,872,881	0.02%	5.04%	195,078	0.04%
1115B-01	Superstructures & Support Bldg - Very Long	159,913	0.00%	0.31%	493	0.00%
1115B-02	Superstructures & Support Bldg - Long	5,464	0.00%	1.72%	94	0.00%
1115B-03	Superstructures & Support Bldg - Medium-Long	585,029	0.00%	0.75%	4,404	0.00%
1115B-04	Superstructures & Support Bldg - Medium	2,172,604	0.01%	2.58%	56,057	0.01%
1115B-05	Superstructures & Support Bldg - Medium-Short	431,712	0.00%	3.11%	13,441	0.00%
1115B-06	Superstructures & Support Bldg - Short	125,559	0.00%	8.40%	10,551	0.00%
1115D-01	Spillway Substructure	174,090	0.00%	1.05%	1,825	0.00%
1115D-04	Spillway Superstructure Original construction	1,570	0.00%	1.09%	17	0.00%
1115D-05	Spillway Superstructure Subsequent modifications	3,110,420	0.01%	2.72%	84,521	0.02%
1115E-01	Water Control Support	2,897,833	0.01%	0.95%	27,469	0.01%
1115E-02	Water Control Support Additions for Sustainment	946,120	0.00%	1.76%	16,644	0.00%
1115F-01	Roads, Grounds and Physical Site Security	1,600,674	0.01%	1.97%	31,572	0.01%
1115G-01	Turbine and Generator Structural and Embedments	2,173,794	0.01%	1.21%	26,280	0.01%
1115G-02	Turbine Runner - Fixed Blade	18,860,195	0.09%	1.47%	278,064	0.06%
1115G-04	Turbine Regulation	6,613,044	0.03%	1.63%	107,517	0.02%

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Acct No	Account Description	Plant Investment at March 31, 2019	Percentage of Total Plant Investment at March 31, 2019	IFRS-ASL Depreciation Rate (Alliance)	IFRS-ASL Annual Accrual Amount (Alliance)	Percentage of Total IFRS-ASL Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1115G-05	Turbine Stationary Parts	3,062,025	0.01%	1.41%	43,308	0.01%
1115G-06	Generator Frames and Core	964,288	0.00%	0.88%	8,524	0.00%
1115G-07	Generator Rotor	742,369	0.00%	1.14%	8,430	0.00%
1115G-08	Generator Windings	15,557,578	0.07%	1.86%	289,552	0.07%
1115P-01	Generating Station Electrical Systems - High Voltage	5,581,357	0.03%	1.46%	81,375	0.02%
1115P-02	Generating Station Electrical Systems - Low Voltage	3,401,939	0.02%	1.88%	64,071	0.01%
1115Q-02	Analog Instrumentation, Control and Protection	836,547	0.00%	1.86%	15,568	0.00%
1115Q-03	Digital Instrumentation, Control and Protection	16,896,028	0.08%	3.49%	589,335	0.13%
1115Q-04	Backup Power Systems	2,478,456	0.01%	3.80%	94,304	0.02%
1115Q-05	Cyber and Intelligence Security	1,193,730	0.01%	8.91%	106,334	0.02%
1115R-01	Mechanical Auxiliary Systems	9,191,866	0.04%	1.58%	145,309	0.03%
1115R-02	Pressure systems	2,336,689	0.01%	1.65%	38,507	0.01%
1115R-03	Tools and test equipment	189,090	0.00%	2.61%	4,941	0.00%
	SEVEN SISTERS SUBTOTAL	149,045,288	0.68%	1.93%	2,881,474	0.66%
	Retired Fully Amortized Plant	483,767	0.00%			0.00%
	SEVEN SISTERS TOTAL	**149,529,055**	**0.68%**	**1.93%**	**2,881,474**	**0.66%**
SLAVE FALLS						
1120A-01	Concrete Dams, Dykes and Substructures	19,186,387	0.09%	1.47%	282,702	0.06%
1120A-02	Embankment Dams and Dykes	6,300,258	0.03%	1.47%	92,803	0.02%
1120B-01	Superstructures & Support Bldg - Very Long	550,390	0.00%	1.48%	8,121	0.00%
1120B-02	Superstructures & Support Bldg - Long	13,081	0.00%	1.73%	227	0.00%
1120B-03	Superstructures & Support Bldg - Medium-Long	2,774,835	0.01%	1.84%	50,946	0.01%
1120B-04	Superstructures & Support Bldg - Medium	3,477,845	0.02%	2.80%	97,388	0.02%
1120B-05	Superstructures & Support Bldg - Medium-Short	2,412,985	0.01%	4.17%	100,730	0.02%
1120B-06	Superstructures & Support Bldg - Short	115,448	0.00%	4.98%	5,749	0.00%
1120D-01	Spillway Substructure	656,017	0.00%	1.61%	10,530	0.00%
1120D-02	Spillway Refurbishment	20,994,575	0.10%	2.32%	486,810	0.11%
1120D-03	Spillway Additions for Sustainment	1,170,413	0.01%	5.03%	58,890	0.01%
1120D-04	Spillway Superstructure Original construction	551,841	0.00%	1.75%	9,643	0.00%
1120D-05	Spillway Superstructure Subsequent modifications	2,677,162	0.01%	3.61%	96,583	0.02%
1120E-01	Water Control Support	5,089,957	0.02%	1.66%	84,719	0.02%
1120F-01	Roads, Grounds and Physical Site Security	39,223,865	0.18%	2.04%	799,779	0.18%
1120G-01	Turbine and Generator Structural and Embedments	3,612,722	0.02%	1.53%	55,368	0.01%
1120G-02	Turbine Runner - Fixed Blade	1,848,000	0.01%	1.57%	29,034	0.01%
1120G-04	Turbine Regulation	952,000	0.00%	1.75%	16,659	0.00%
1120G-05	Turbine Stationary Parts	952,000	0.00%	1.57%	14,988	0.00%
1120G-06	Generator Frames and Core	1,285,368	0.01%	1.91%	24,611	0.01%
1120G-07	Generator Rotor	1,285,368	0.01%	1.56%	20,081	0.00%
1120G-08	Generator Windings	1,492,678	0.01%	1.86%	27,711	0.01%
1120P-01	Generating Station Electrical Systems - High Voltage	13,518,429	0.06%	1.73%	233,428	0.05%
1120P-02	Generating Station Electrical Systems - Low Voltage	9,000,124	0.04%	2.49%	224,544	0.05%
1120Q-01	Mechanical Instrumentation, Control and Protection	682,301	0.00%	2.01%	13,743	0.00%
1120Q-02	Analog Instrumentation, Control and Protection	58,000	0.00%	2.43%	1,412	0.00%
1120Q-03	Digital Instrumentation, Control and Protection	5,214,368	0.02%	4.02%	209,725	0.05%
1120Q-04	Backup Power Systems	1,387,895	0.01%	4.32%	60,011	0.01%
1120Q-05	Cyber and Intelligence Security	857,986	0.00%	10.58%	90,800	0.02%
1120R-01	Mechanical Auxiliary Systems	21,214,697	0.10%	1.93%	410,486	0.09%
1120R-02	Pressure systems	759,266	0.00%	1.86%	14,119	0.00%
1120R-03	Tools and test equipment	236,886	0.00%	5.75%	13,617	0.00%
	SLAVE FALLS TOTAL	**169,553,149**	**0.77%**	**2.15%**	**3,645,958**	**0.83%**
PINE FALLS						
1125A-01	Concrete Dams, Dykes and Substructures	4,878,331	0.02%	0.84%	40,816	0.01%
1125A-02	Embankment Dams and Dykes	3,756,711	0.02%	1.08%	40,698	0.01%
1125A-05	Concrete Dams, Dykes and Substructures Refurbishment	368,671	0.00%	1.49%	5,493	0.00%
1125A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	51,326	0.00%	3.42%	1,758	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1125A-10	Embankment Dams and Dykes Additions for Sustainment	5,635,867	0.03%	6.64%	374,008	0.09%
1125B-01	Superstructures & Support Bldg - Very Long	260,406	0.00%	1.03%	2,672	0.00%
1125B-02	Superstructures & Support Bldg - Long	3,664	0.00%	1.36%	50	0.00%
1125B-03	Superstructures & Support Bldg - Medium-Long	913,695	0.00%	2.02%	18,436	0.00%
1125B-04	Superstructures & Support Bldg - Medium	2,025,822	0.01%	2.83%	57,246	0.01%
1125B-05	Superstructures & Support Bldg - Medium-Short	517,940	0.00%	3.54%	18,337	0.00%
1125B-06	Superstructures & Support Bldg - Short	55,774	0.00%	3.70%	2,063	0.00%
1125D-01	Spillway Substructure	791,081	0.00%	1.16%	9,149	0.00%
1125D-04	Spillway Superstructure Original construction	382,950	0.00%	1.59%	6,083	0.00%
1125D-05	Spillway Superstructure Subsequent modifications	93,376	0.00%	3.43%	3,203	0.00%
1125E-01	Water Control Support	1,483,593	0.01%	0.28%	4,210	0.00%
1125E-02	Water Control Support Additions for Sustainment	864,642	0.00%	1.03%	8,928	0.00%
1125F-01	Roads, Grounds and Physical Site Security	2,296,883	0.01%	1.40%	32,258	0.01%
1125G-01	Turbine and Generator Structural and Embedments	9,552,498	0.04%	1.37%	130,740	0.03%
1125G-02	Turbine Runner - Fixed Blade	13,733,692	0.06%	1.54%	211,613	0.05%
1125G-04	Turbine Regulation	5,607,135	0.03%	1.78%	100,068	0.02%
1125G-05	Turbine Stationary Parts	5,607,135	0.03%	1.55%	86,738	0.02%
1125G-06	Generator Frames and Core	5,895,795	0.03%	1.98%	116,765	0.03%
1125G-07	Generator Rotor	6,231,809	0.03%	1.55%	96,344	0.02%
1125G-08	Generator Windings	7,181,475	0.03%	1.88%	135,179	0.03%
1125P-01	Generating Station Electrical Systems - High Voltage	8,891,494	0.04%	1.63%	144,818	0.03%
1125P-02	Generating Station Electrical Systems - Low Voltage	6,672,772	0.03%	2.35%	157,128	0.04%
1125Q-01	Mechanical Instrumentation, Control and Protection	488,173	0.00%	1.85%	9,014	0.00%
1125Q-02	Analog Instrumentation, Control and Protection	193,894	0.00%	1.77%	3,436	0.00%
1125Q-03	Digital Instrumentation, Control and Protection	6,044,075	0.03%	3.67%	221,744	0.05%
1125Q-04	Backup Power Systems	417,453	0.00%	3.90%	16,301	0.00%
1125Q-05	Cyber and Intelligence Security	1,167,937	0.01%	9.57%	111,819	0.03%
1125R-01	Mechanical Auxiliary Systems	6,490,249	0.03%	1.56%	101,352	0.02%
1125R-02	Pressure systems	979,024	0.00%	1.85%	18,161	0.00%
1125R-03	Tools and test equipment	56,076	0.00%	5.19%	2,910	0.00%
1125Z-01	Community Development Costs	25,592,289	0.12%	1.16%	296,978	0.07%
	PINE FALLS SUBTOTAL	135,183,707	0.61%	1.91%	2,586,515	0.59%
	Retired Fully Amortized Plant	372,058	0.00%			0.00%
	PINE FALLS TOTAL	**135,555,766**	**0.62%**	**1.91%**	**2,586,515**	**0.59%**
MCARTHUR FALLS						
1130A-01	Concrete Dams, Dykes and Substructures	6,761,221	0.03%	0.68%	45,976	0.01%
1130A-02	Embankment Dams and Dykes	4,516,683	0.02%	1.17%	52,712	0.01%
1130A-06	Embankment Dams and Dykes Refurbishments	2,511,945	0.01%	2.59%	65,149	0.01%
1130A-10	Embankment Dams and Dykes Additions for Sustainment	7,699,218	0.03%	6.77%	521,563	0.12%
1130B-01	Superstructures & Support Bldg - Very Long	28,263	0.00%	0.75%	211	0.00%
1130B-03	Superstructures & Support Bldg - Medium-Long	263,745	0.00%	1.45%	3,820	0.00%
1130B-04	Superstructures & Support Bldg - Medium	933,470	0.00%	2.80%	26,097	0.01%
1130B-05	Superstructures & Support Bldg - Medium-Short	1,290,292	0.01%	4.09%	52,808	0.01%
1130B-06	Superstructures & Support Bldg - Short	62,545	0.00%	6.71%	4,196	0.00%
1130D-01	Spillway Substructure	1,646,007	0.01%	1.21%	19,844	0.00%
1130D-02	Spillway Refurbishment	7,060,027	0.03%	2.03%	143,532	0.03%
1130D-03	Spillway Additions for Sustainment	2,054,728	0.01%	4.02%	82,600	0.02%
1130D-04	Spillway Superstructure Original construction	705,431	0.00%	1.74%	12,272	0.00%
1130D-05	Spillway Superstructure Subsequent modifications	66,065	0.00%	2.89%	1,909	0.00%
1130E-01	Water Control Support	4,561,625	0.02%	1.11%	50,564	0.01%
1130E-02	Water Control Support Additions for Sustainment	245,726	0.00%	1.47%	3,603	0.00%
1130F-01	Roads, Grounds and Physical Site Security	1,168,477	0.01%	1.95%	22,822	0.01%
1130G-01	Turbine and Generator Structural and Embedments	1,450,437	0.01%	0.03%	395	0.00%
1130G-02	Turbine Runner - Fixed Blade	1,024,281	0.00%	0.46%	4,696	0.00%
1130G-04	Turbine Regulation	492,349	0.00%	0.00%	-	0.00%
1130G-05	Turbine Stationary Parts	469,977	0.00%	0.00%	-	0.00%
1130G-06	Generator Frames and Core	538,128	0.00%	0.00%	-	0.00%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1130G-07	Generator Rotor	538,128	0.00%	0.00%	-	0.00%
1130G-08	Generator Windings	538,128	0.00%	0.00%	-	0.00%
1130P-01	Generating Station Electrical Systems - High Voltage	778,135	0.00%	1.03%	7,989	0.00%
1130P-02	Generating Station Electrical Systems - Low Voltage	4,042,569	0.02%	1.94%	78,333	0.02%
1130Q-01	Mechanical Instrumentation, Control and Protection	1,197	0.00%	0.77%	9	0.00%
1130Q-02	Analog Instrumentation, Control and Protection	752,542	0.00%	1.68%	12,676	0.00%
1130Q-03	Digital Instrumentation, Control and Protection	1,948,880	0.01%	3.57%	69,567	0.02%
1130Q-04	Backup Power Systems	1,553,629	0.01%	3.96%	61,595	0.01%
1130Q-05	Cyber and Intelligence Security	978,675	0.00%	10.07%	98,524	0.02%
1130R-01	Mechanical Auxiliary Systems	3,239,595	0.01%	1.53%	49,580	0.01%
1130R-02	Pressure systems	1,765,465	0.01%	1.84%	32,531	0.01%
1130R-03	Tools and test equipment	-	0.00%	0.00%	-	0.00%
	MCARTHUR FALLS SUBTOTAL	61,687,583	0.28%	2.47%	1,525,572	0.35%
	Retired Fully amortized Plant	105,966	0.00%			0.00%
	MCARTHUR FALLS TOTAL	**61,793,549**	**0.28%**	**2.47%**	**1,525,572**	**0.35%**
KELSEY						
1135A-01	Concrete Dams, Dykes and Substructures	22,968,751	0.10%	0.98%	225,205	0.05%
1135A-02	Embankment Dams and Dykes	3,650,661	0.02%	1.24%	45,159	0.01%
1135A-05	Concrete Dams, Dykes and Substructures Refurbishment	47,641,125	0.22%	1.38%	658,820	0.15%
1135A-06	Embankment Dams and Dykes Refurbishments	218,657	0.00%	4.30%	9,412	0.00%
1135A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	189,568	0.00%	4.48%	8,488	0.00%
1135A-10	Embankment Dams and Dykes Additions for Sustainment	236,083	0.00%	10.25%	24,188	0.01%
1135B-01	Superstructures & Support Bldg - Very Long	300,567	0.00%	1.27%	3,803	0.00%
1135B-02	Superstructures & Support Bldg - Long	1,817,268	0.01%	1.74%	31,557	0.01%
1135B-03	Superstructures & Support Bldg - Medium-Long	4,280,908	0.02%	2.21%	94,779	0.02%
1135B-04	Superstructures & Support Bldg - Medium	4,201,543	0.02%	3.73%	156,531	0.04%
1135B-05	Superstructures & Support Bldg - Medium-Short	2,176,842	0.01%	6.19%	134,768	0.03%
1135B-06	Superstructures & Support Bldg - Short	914,481	0.00%	5.93%	54,264	0.01%
1135D-01	Spillway Substructure	1,199,388	0.01%	1.81%	21,717	0.00%
1135D-02	Spillway Refurbishment	2,393,841	0.01%	3.01%	72,112	0.02%
1135D-03	Spillway Additions for Sustainment	1,864,997	0.01%	4.84%	90,298	0.02%
1135D-04	Spillway Superstructure Original construction	4,132,541	0.02%	3.44%	142,296	0.03%
1135E-01	Water Control Support	3,336,369	0.02%	1.82%	60,577	0.01%
1135E-02	Water Control Support Additions for Sustainment	40,679,866	0.18%	2.65%	1,078,956	0.25%
1135F-01	Roads, Grounds and Physical Site Security	14,883,858	0.07%	2.05%	304,781	0.07%
1135G-01	Turbine and Generator Structural and Embedments	13,230,175	0.06%	1.26%	167,275	0.04%
1135G-02	Turbine Runner - Fixed Blade	60,137,063	0.27%	1.55%	930,318	0.21%
1135G-04	Turbine Regulation	22,351,023	0.10%	1.85%	414,215	0.09%
1135G-05	Turbine Stationary Parts	22,191,717	0.10%	1.59%	352,383	0.08%
1135G-06	Generator Frames and Core	7,736,610	0.04%	2.05%	158,600	0.04%
1135G-07	Generator Rotor	212,444	0.00%	2.04%	4,332	0.00%
1135G-08	Generator Windings	29,801,399	0.14%	1.96%	585,434	0.13%
1135P-01	Generating Station Electrical Systems - High Voltage	40,328,273	0.18%	1.61%	650,676	0.15%
1135P-02	Generating Station Electrical Systems - Low Voltage	2,444,776	0.01%	2.56%	62,535	0.01%
1135Q-01	Mechanical Instrumentation, Control and Protection	1,795,642	0.01%	1.75%	31,505	0.01%
1135Q-02	Analog Instrumentation, Control and Protection	15,414,372	0.07%	1.98%	304,930	0.07%
1135Q-03	Digital Instrumentation, Control and Protection	3,815,381	0.02%	2.79%	106,370	0.02%
1135Q-04	Backup Power Systems	333,498	0.00%	3.24%	10,818	0.00%
1135Q-05	Cyber and Intelligence Security	2,015,380	0.01%	8.85%	178,304	0.04%
1135R-01	Mechanical Auxiliary Systems	13,319,515	0.06%	1.62%	215,523	0.05%
1135R-02	Pressure systems	1,827,544	0.01%	1.78%	32,571	0.01%
1135R-03	Tools and test equipment	-	0.00%	0.00%	-	0.00%
	KELSEY SUBTOTAL	394,042,124	1.79%	1.88%	7,423,501	1.69%
	Retired Fully amortized Plant	764,884	0.00%			0.00%
	KELSEY TOTAL	**394,807,008**	**1.79%**	**1.88%**	**7,423,501**	**1.69%**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
GRAND RAPIDS						
1140A-01	Concrete Dams, Dykes and Substructures	20,728,240	0.09%	0.81%	167,936	0.04%
1140A-02	Embankment Dams and Dykes	40,794,687	0.19%	0.95%	388,833	0.09%
1140A-03	Timber Dams and Dykes	250,000	0.00%	8.95%	22,374	0.01%
1140A-05	Concrete Dams, Dykes and Substructures Refurbishment	74,274	0.00%	1.30%	964	0.00%
1140A-06	Embankment Dams and Dykes Refurbishments	795,242	0.00%	3.08%	24,501	0.01%
1140A-10	Embankment Dams and Dykes Additions for Sustainment	13,018,371	0.06%	5.84%	759,889	0.17%
1140B-01	Superstructures & Support Bldg - Very Long	234,984	0.00%	0.91%	2,142	0.00%
1140B-02	Superstructures & Support Bldg - Long	2,245,776	0.01%	1.51%	33,901	0.01%
1140B-03	Superstructures & Support Bldg - Medium-Long	3,559,761	0.02%	1.83%	65,171	0.01%
1140B-04	Superstructures & Support Bldg - Medium	8,224,773	0.04%	2.80%	230,050	0.05%
1140B-05	Superstructures & Support Bldg - Medium-Short	6,536,304	0.03%	4.10%	267,785	0.06%
1140B-06	Superstructures & Support Bldg - Short	2,275,210	0.01%	5.69%	129,500	0.03%
1140D-01	Spillway Substructure	4,007,473	0.02%	0.96%	38,501	0.01%
1140D-02	Spillway Refurbishment	143,426	0.00%	2.19%	3,146	0.00%
1140D-04	Spillway Superstructure Original construction	1,300,861	0.01%	1.10%	14,349	0.00%
1140E-01	Water Control Support	12,138,833	0.06%	0.13%	16,161	0.00%
1140E-02	Water Control Support Additions for Sustainment	2,587,832	0.01%	1.21%	31,318	0.01%
1140F-01	Roads, Grounds and Physical Site Security	3,472,758	0.02%	1.40%	48,555	0.01%
1140G-01	Turbine and Generator Structural and Embedments	2,976,028	0.01%	1.23%	36,535	0.01%
1140G-03	Turbine Runner - Variable Blade	50,718,877	0.23%	2.76%	1,401,886	0.32%
1140G-04	Turbine Regulation	9,077,379	0.04%	1.96%	177,645	0.04%
1140G-05	Turbine Stationary Parts	9,077,379	0.04%	1.66%	150,643	0.03%
1140G-06	Generator Frames and Core	5,321,514	0.02%	2.22%	117,982	0.03%
1140G-07	Generator Rotor	5,321,514	0.02%	1.65%	87,747	0.02%
1140G-08	Generator Windings	19,802,293	0.09%	2.06%	407,235	0.09%
1140L-01	GS Licensing	78,917,675	0.36%	1.99%	1,571,094	0.36%
1140P-01	Generating Station Electrical Systems - High Voltage	28,815,269	0.13%	1.64%	472,685	0.11%
1140P-02	Generating Station Electrical Systems - Low Voltage	1,967,372	0.01%	2.40%	47,278	0.01%
1140Q-01	Mechanical Instrumentation, Control and Protection	473,428	0.00%	1.85%	8,768	0.00%
1140Q-02	Analog Instrumentation, Control and Protection	4,353,930	0.02%	1.53%	66,435	0.02%
1140Q-03	Digital Instrumentation, Control and Protection	13,903,831	0.06%	4.04%	561,641	0.13%
1140Q-04	Backup Power Systems	2,018,902	0.01%	3.97%	80,057	0.02%
1140Q-05	Cyber and Intelligence Security	2,151,549	0.01%	7.75%	166,751	0.04%
1140R-01	Mechanical Auxiliary Systems	14,790,326	0.07%	1.59%	235,769	0.05%
1140R-02	Pressure systems	3,078,064	0.01%	1.95%	60,046	0.01%
1140R-03	Tools and test equipment	157,044	0.00%	4.20%	6,597	0.00%
1140Z-01	Community Development Costs	187,821,533	0.85%	1.12%	2,105,130	0.48%
	GRAND RAPIDS SUBTOTAL	563,132,714	2.56%	1.78%	10,006,998	2.28%
	Retired Fully amortized Plant	345,158	0.00%			0.00%
	GRAND RAPIDS TOTAL	**563,477,872**	**2.56%**	**1.78%**	**10,006,998**	**2.28%**
KETTLE						
1145A-01	Concrete Dams, Dykes and Substructures	125,214,115	0.57%	0.82%	1,029,044	0.23%
1145A-02	Embankment Dams and Dykes	37,278,583	0.17%	0.75%	278,488	0.06%
1145A-05	Concrete Dams, Dykes and Substructures Refurbishment	262,515	0.00%	1.04%	2,723	0.00%
1145A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	107,616	0.00%	3.33%	3,587	0.00%
1145A-10	Embankment Dams and Dykes Additions for Sustainment	290,090	0.00%	5.00%	14,504	0.00%
1145B-01	Superstructures & Support Bldg - Very Long	2,941,485	0.01%	1.00%	29,424	0.01%
1145B-02	Superstructures & Support Bldg - Long	713,110	0.00%	1.41%	10,048	0.00%
1145B-03	Superstructures & Support Bldg - Medium-Long	12,853,834	0.06%	1.79%	230,184	0.05%
1145B-04	Superstructures & Support Bldg - Medium	9,192,310	0.04%	2.82%	259,562	0.06%
1145B-05	Superstructures & Support Bldg - Medium-Short	7,538,638	0.03%	4.00%	301,641	0.07%
1145B-06	Superstructures & Support Bldg - Short	387,465	0.00%	7.42%	28,746	0.01%
1145D-01	Spillway Substructure	14,733,141	0.07%	0.98%	144,831	0.03%
1145D-04	Spillway Superstructure Original construction	6,314,203	0.03%	1.13%	71,428	0.02%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1145E-01	Water Control Support	17,318,091	0.08%	0.41%	71,219	0.02%
1145E-02	Water Control Support Additions for Sustainment	634,458	0.00%	2.29%	14,507	0.00%
1145F-01	Roads, Grounds and Physical Site Security	1,297,742	0.01%	1.98%	25,655	0.01%
1145G-01	Turbine and Generator Structural and Embedments	17,325,966	0.08%	0.99%	171,064	0.04%
1145G-02	Turbine Runner - Fixed Blade	9,667,828	0.04%	1.23%	119,313	0.03%
1145G-04	Turbine Regulation	7,726,679	0.04%	1.61%	124,196	0.03%
1145G-05	Turbine Stationary Parts	5,111,366	0.02%	1.27%	64,988	0.01%
1145G-06	Generator Frames and Core	42,916,903	0.20%	1.97%	844,217	0.19%
1145G-07	Generator Rotor	7,658,138	0.03%	1.25%	95,545	0.02%
1145G-08	Generator Windings	33,972,786	0.15%	1.87%	635,323	0.14%
1145P-01	Generating Station Electrical Systems - High Voltage	47,690,692	0.22%	1.56%	741,831	0.17%
1145P-02	Generating Station Electrical Systems - Low Voltage	5,205,752	0.02%	1.71%	88,807	0.02%
1145Q-02	Analog Instrumentation, Control and Protection	13,564,232	0.06%	1.95%	264,706	0.06%
1145Q-03	Digital Instrumentation, Control and Protection	19,250,891	0.09%	3.44%	662,823	0.15%
1145Q-04	Backup Power Systems	348,030	0.00%	3.48%	12,112	0.00%
1145Q-05	Cyber and Intelligence Security	2,524,363	0.01%	8.57%	216,316	0.05%
1145R-01	Mechanical Auxiliary Systems	40,464,517	0.18%	1.44%	581,472	0.13%
1145R-02	Pressure systems	1,904,712	0.01%	1.80%	34,324	0.01%
1145R-03	Tools and test equipment	116,369	0.00%	3.31%	3,851	0.00%
	KETTLE SUBTOTAL	492,526,621	2.24%	1.46%	7,176,480	1.63%
	Retired Fully Amortized plant	906,651	0.00%			0.00%
	KETTLE TOTAL	**493,433,272**	**2.24%**	**1.46%**	**7,176,480**	**1.63%**
LAURIE RIVER						
1150A-05	Concrete Dams, Dykes and Substructures Refurbishment	2,611,923	0.01%	1.52%	39,673	0.01%
1150A-06	Embankment Dams and Dykes Refurbishments	316,188	0.00%	3.92%	12,407	0.00%
1150B-02	Superstructures & Support Bldg - Long	103,216	0.00%	1.91%	1,969	0.00%
1150B-03	Superstructures & Support Bldg - Medium-Long	2,489,133	0.01%	2.18%	54,190	0.01%
1150B-04	Superstructures & Support Bldg - Medium	1,787,420	0.01%	2.67%	47,695	0.01%
1150B-05	Superstructures & Support Bldg - Medium-Short	764,258	0.00%	3.23%	24,687	0.01%
1150B-06	Superstructures & Support Bldg - Short	310,194	0.00%	4.67%	14,483	0.00%
1150D-02	Spillway Refurbishment	870,000	0.00%	2.11%	18,346	0.00%
1150E-01	Water Control Support	345,135	0.00%	1.68%	5,790	0.00%
1150E-02	Water Control Support Additions for Sustainment	321,702	0.00%	2.31%	7,433	0.00%
1150F-01	Roads, Grounds and Physical Site Security	1,588,097	0.01%	2.01%	31,927	0.01%
1150G-01	Turbine and Generator Structural and Embedments	257,898	0.00%	1.27%	3,266	0.00%
1150G-06	Generator Frames and Core	257,898	0.00%	1.24%	3,186	0.00%
1150G-07	Generator Rotor	257,898	0.00%	1.27%	3,275	0.00%
1150G-08	Generator Windings	3,415,062	0.02%	2.07%	70,635	0.02%
1150P-02	Generating Station Electrical Systems - Low Voltage	1,788,265	0.01%	2.21%	39,605	0.01%
1150Q-01	Mechanical Instrumentation, Control and Protection	81,827	0.00%	1.66%	1,362	0.00%
1150Q-02	Analog Instrumentation, Control and Protection	342,413	0.00%	1.46%	4,992	0.00%
1150Q-03	Digital Instrumentation, Control and Protection	853,910	0.00%	3.34%	28,478	0.01%
1150Q-04	Backup Power Systems	32,263	0.00%	1.57%	506	0.00%
1150R-01	Mechanical Auxiliary Systems	1,001,405	0.00%	1.49%	14,877	0.00%
	LAURIE RIVER TOTAL	**19,796,107**	**0.09%**	**2.17%**	**428,783**	**0.10%**
JENPEG						
1155A-01	Concrete Dams, Dykes and Substructures	80,606,373	0.37%	0.78%	628,730	0.14%
1155A-02	Embankment Dams and Dykes	8,015,475	0.04%	0.84%	67,730	0.02%
1155A-06	Embankment Dams and Dykes Refurbishments	1,323,364	0.01%	2.48%	32,770	0.01%
1155A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	31,576	0.00%	3.20%	1,009	0.00%
1155A-10	Embankment Dams and Dykes Additions for Sustainment	1,672,408	0.01%	4.72%	78,990	0.02%
1155B-01	Superstructures & Support Bldg - Very Long	124,647	0.00%	0.89%	1,113	0.00%
1155B-02	Superstructures & Support Bldg - Long	1,728,345	0.01%	1.37%	23,689	0.01%
1155B-03	Superstructures & Support Bldg - Medium-Long	3,688,132	0.02%	1.86%	68,679	0.02%
1155B-04	Superstructures & Support Bldg - Medium	8,185,233	0.04%	3.18%	260,230	0.06%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1155B-05	Superstructures & Support Bldg - Medium-Short	5,197,102	0.02%	4.23%	219,822	0.05%
1155B-06	Superstructures & Support Bldg - Short	1,374,038	0.01%	7.12%	97,799	0.02%
1155D-01	Spillway Substructure	14,923,394	0.07%	0.89%	133,051	0.03%
1155D-04	Spillway Superstructure Original construction	4,429,185	0.02%	1.30%	57,612	0.01%
1155D-05	Spillway Superstructure Subsequent modifications	71,755	0.00%	2.38%	1,709	0.00%
1155E-01	Water Control Support	13,032,817	0.06%	0.64%	83,216	0.02%
1155F-01	Roads, Grounds and Physical Site Security	4,639,534	0.02%	1.89%	87,636	0.02%
1155G-01	Turbine and Generator Structural and Embedments	19,171,002	0.09%	1.04%	199,170	0.05%
1155G-03	Turbine Runner - Variable Blade	11,642,687	0.05%	2.16%	251,029	0.06%
1155G-04	Turbine Regulation	13,638,537	0.06%	1.79%	243,792	0.06%
1155G-05	Turbine Stationary Parts	19,772,483	0.09%	1.54%	304,030	0.07%
1155G-06	Generator Frames and Core	10,671,117	0.05%	1.77%	189,071	0.04%
1155G-07	Generator Rotor	10,424,603	0.05%	1.44%	150,631	0.03%
1155G-08	Generator Windings	12,993,253	0.06%	1.76%	228,897	0.05%
1155P-01	Generating Station Electrical Systems - High Voltage	16,652,278	0.08%	1.47%	244,552	0.06%
1155P-02	Generating Station Electrical Systems - Low Voltage	13,355,129	0.06%	1.94%	259,634	0.06%
1155Q-01	Mechanical Instrumentation, Control and Protection	3,912	0.00%	0.24%	9	0.00%
1155Q-02	Analog Instrumentation, Control and Protection	2,680,166	0.01%	1.82%	48,655	0.01%
1155Q-03	Digital Instrumentation, Control and Protection	8,714,738	0.04%	3.82%	333,334	0.08%
1155Q-04	Backup Power Systems	30,806	0.00%	2.53%	780	0.00%
1155Q-05	Cyber and Intelligence Security	1,984,176	0.01%	8.57%	170,027	0.04%
1155R-01	Mechanical Auxiliary Systems	15,455,496	0.07%	1.36%	209,740	0.05%
1155R-02	Pressure systems	511,999	0.00%	0.83%	4,251	0.00%
1155R-03	Tools and test equipment	77,878	0.00%	5.84%	4,545	0.00%
	JENPEG SUBTOTAL	306,823,634	1.39%	1.53%	4,685,935	1.07%
	Retired Fully Amortized Plant	213,912	0.00%			0.00%
	JENPEG TOTAL	**307,037,547**	**1.40%**	**1.53%**	**4,685,935**	**1.07%**
LAKE WINNIPEG REGULATION						
1160A-01	Concrete Dams, Dykes and Substructures	1,244,420	0.01%	0.72%	8,932	0.00%
1160A-02	Embankment Dams and Dykes	115,539,484	0.53%	0.74%	849,251	0.19%
1160F-01	Roads, Grounds and Physical Site Security	960,604	0.00%	1.58%	15,147	0.00%
1160L-01	GS Licensing	500,000	0.00%	2.01%	10,072	0.00%
1160Q-03	Digital Instrumentation, Control and Protection	7,316	0.00%	4.00%	293	0.00%
1160Z-01	Community Development Costs	500,269,212	2.27%	1.16%	5,787,012	1.32%
	LAKE WINNIPEG REGULATION TOTAL	**618,521,037**	**2.81%**	**1.08%**	**6,670,707**	**1.52%**
CHURCHILL RIVER DIVERSION						
1165A-01	Concrete Dams, Dykes and Substructures	64,751,530	0.29%	0.65%	421,772	0.10%
1165A-02	Embankment Dams and Dykes	97,713,432	0.44%	0.83%	813,518	0.19%
1165A-04	Weirs	28,741,825	0.13%	2.11%	605,625	0.14%
1165A-06	Embankment Dams and Dykes Refurbishments	90,770	0.00%	2.83%	2,567	0.00%
1165A-08	Weirs Refurbishment	1,242,108	0.01%	4.50%	55,894	0.01%
1165B-01	Superstructures & Support Bldg - Very Long	54,849	0.00%	0.69%	377	0.00%
1165B-02	Superstructures & Support Bldg - Long	30,626	0.00%	1.35%	414	0.00%
1165B-03	Superstructures & Support Bldg - Medium-Long	581,467	0.00%	1.48%	8,632	0.00%
1165B-04	Superstructures & Support Bldg - Medium	543,368	0.00%	2.32%	12,589	0.00%
1165B-05	Superstructures & Support Bldg - Medium-Short	164,288	0.00%	3.72%	6,119	0.00%
1165B-06	Superstructures & Support Bldg - Short	38,137	0.00%	6.05%	2,306	0.00%
1165D-01	Spillway Substructure	2,776,405	0.01%	0.68%	18,941	0.00%
1165D-04	Spillway Superstructure Original construction	502,596	0.00%	0.34%	1,698	0.00%
1165E-01	Water Control Support	13,418,792	0.06%	0.58%	78,414	0.02%
1165E-02	Water Control Support Additions for Sustainment	508,422	0.00%	2.52%	12,798	0.00%
1165F-01	Roads, Grounds and Physical Site Security	11,835,084	0.05%	1.82%	214,834	0.05%
1165P-02	Generating Station Electrical Systems - Low Voltage	1,668,538	0.01%	2.84%	47,379	0.01%
1165Q-01	Mechanical Instrumentation, Control and Protection	3,246,267	0.01%	1.81%	58,888	0.01%
1165Q-02	Analog Instrumentation, Control and Protection	2,844,528	0.01%	1.45%	41,361	0.01%
1165Q-03	Digital Instrumentation, Control and Protection	178,987	0.00%	3.72%	6,662	0.00%
1165Q-04	Backup Power Systems	17,397	0.00%	3.81%	662	0.00%

Manitoba Hydro Consolidated Electric Operations
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Acct No	Account Description	Plant Investment at March 31, 2019	Percentage of Total Plant Investment at March 31, 2019	IFRS-ASL Depreciation Rate (Alliance)	IFRS-ASL Annual Accrual Amount (Alliance)	Percentage of Total IFRS-ASL Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1165R-01	Mechanical Auxiliary Systems	5,248,652	0.02%	0.74%	38,991	0.01%
1165R-03	Tools and test equipment	8	0.00%	6.67%	1	0.00%
1165Z-01	Community Development Costs	393,313,694	1.79%	1.08%	4,240,246	0.96%
	CHURCHILL RIVER DIVERSION SUBTOTAL	629,511,771	2.86%	1.06%	6,690,688	1.52%
	Retired Fully Amortized Plant	119,658	0.00%			0.00%
	CHURCHILL RIVER DIVERSION TOTAL	**629,631,429**	**2.86%**	**1.06%**	**6,690,688**	**1.52%**
LONG SPRUCE						
1170A-01	Concrete Dams, Dykes and Substructures	155,292,831	0.71%	0.82%	1,270,116	0.29%
1170A-02	Embankment Dams and Dykes	36,035,091	0.16%	0.80%	289,882	0.07%
1170A-06	Embankment Dams and Dykes Refurbishments	2,954,291	0.01%	2.37%	69,990	0.02%
1170A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	225,042	0.00%	3.33%	7,489	0.00%
1170A-10	Embankment Dams and Dykes Additions for Sustainment	576,630	0.00%	3.58%	20,666	0.00%
1170B-01	Superstructures & Support Bldg - Very Long	1,285,948	0.01%	0.99%	12,779	0.00%
1170B-03	Superstructures & Support Bldg - Medium-Long	4,579,922	0.02%	1.79%	81,914	0.02%
1170B-04	Superstructures & Support Bldg - Medium	3,802,445	0.02%	2.70%	102,780	0.02%
1170B-05	Superstructures & Support Bldg - Medium-Short	4,967,958	0.02%	3.96%	196,484	0.04%
1170B-06	Superstructures & Support Bldg - Short	83,815	0.00%	5.36%	4,494	0.00%
1170D-01	Spillway Substructure	29,259,213	0.13%	1.06%	310,224	0.07%
1170D-04	Spillway Superstructure Original construction	12,510,403	0.06%	1.32%	165,080	0.04%
1170D-05	Spillway Superstructure Subsequent modifications	498,975	0.00%	2.38%	11,864	0.00%
1170E-02	Water Control Support Additions for Sustainment	41,781	0.00%	1.72%	719	0.00%
1170F-01	Roads, Grounds and Physical Site Security	4,435,120	0.02%	1.90%	84,141	0.02%
1170G-01	Turbine and Generator Structural and Embedments	39,883,069	0.18%	0.97%	387,660	0.09%
1170G-02	Turbine Runner - Fixed Blade	20,711,550	0.09%	1.22%	252,822	0.06%
1170G-04	Turbine Regulation	10,912,969	0.05%	1.31%	142,588	0.03%
1170G-05	Turbine Stationary Parts	10,738,905	0.05%	1.25%	134,099	0.03%
1170G-06	Generator Frames and Core	19,246,716	0.09%	1.13%	217,335	0.05%
1170G-07	Generator Rotor	19,246,716	0.09%	1.23%	237,680	0.05%
1170G-08	Generator Windings	22,246,298	0.10%	1.32%	294,695	0.07%
1170P-01	Generating Station Electrical Systems - High Voltage	24,052,592	0.11%	1.05%	252,509	0.06%
1170P-02	Generating Station Electrical Systems - Low Voltage	12,101,614	0.06%	0.75%	90,441	0.02%
1170Q-02	Analog Instrumentation, Control and Protection	2,011,013	0.01%	1.96%	39,489	0.01%
1170Q-03	Digital Instrumentation, Control and Protection	13,167,827	0.06%	3.78%	497,460	0.11%
1170Q-04	Backup Power Systems	496,178	0.00%	3.68%	18,238	0.00%
1170Q-05	Cyber and Intelligence Security	2,344,163	0.01%	9.07%	212,586	0.05%
1170R-01	Mechanical Auxiliary Systems	70,028,548	0.32%	0.83%	578,965	0.13%
1170R-02	Pressure systems	925,574	0.00%	0.91%	8,400	0.00%
1170R-03	Tools and test equipment	69,550	0.00%	6.67%	4,637	0.00%
	LONG SPRUCE SUBTOTAL	524,732,746	2.39%	1.14%	5,998,228	1.37%
	Retired Fully Amortized Plant	460,391	0.00%			0.00%
	LONG SPRUCE TOTAL	**525,193,136**	**2.39%**	**1.14%**	**5,998,228**	**1.37%**
LIMESTONE						
1175A-01	Concrete Dams, Dykes and Substructures	466,427,122	2.12%	0.81%	3,795,267	0.86%
1175A-02	Embankment Dams and Dykes	11,492,757	0.05%	0.80%	92,343	0.02%
1175A-10	Embankment Dams and Dykes Additions for Sustainment	71,274	0.00%	2.55%	1,819	0.00%
1175B-01	Superstructures & Support Bldg - Very Long	1,648,680	0.01%	0.98%	16,233	0.00%
1175B-02	Superstructures & Support Bldg - Long	1,853,834	0.01%	1.48%	27,435	0.01%
1175B-03	Superstructures & Support Bldg - Medium-Long	9,535,550	0.04%	1.69%	160,964	0.04%
1175B-04	Superstructures & Support Bldg - Medium	6,927,131	0.03%	2.90%	200,901	0.05%
1175B-05	Superstructures & Support Bldg - Medium-Short	5,698,495	0.03%	4.06%	231,502	0.05%
1175B-06	Superstructures & Support Bldg - Short	1,412,156	0.01%	9.23%	130,352	0.03%
1175D-01	Spillway Substructure	140,903,599	0.64%	1.07%	1,503,407	0.34%
1175D-03	Spillway Additions for Sustainment	170,763	0.00%	3.68%	6,282	0.00%
1175D-04	Spillway Superstructure Original construction	60,387,257	0.27%	1.35%	812,216	0.18%
1175D-05	Spillway Superstructure Subsequent modifications	1,615,603	0.01%	2.83%	45,702	0.01%
1175E-01	Water Control Support	105,578,550	0.48%	0.86%	903,398	0.21%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1175F-01	Roads, Grounds and Physical Site Security	17,919,064	0.08%	1.76%	314,721	0.07%
1175G-01	Turbine and Generator Structural and Embedments	114,364,515	0.52%	1.02%	1,166,447	0.27%
1175G-02	Turbine Runner - Fixed Blade	59,179,216	0.27%	1.38%	818,262	0.19%
1175G-04	Turbine Regulation	29,641,317	0.13%	1.61%	477,046	0.11%
1175G-05	Turbine Stationary Parts	31,139,157	0.14%	1.43%	444,168	0.10%
1175G-06	Generator Frames and Core	54,019,224	0.25%	1.71%	923,362	0.21%
1175G-07	Generator Rotor	57,780,018	0.26%	1.41%	815,368	0.19%
1175G-08	Generator Windings	57,780,018	0.26%	1.68%	969,102	0.22%
1175P-01	Generating Station Electrical Systems - High Voltage	114,616,611	0.52%	1.29%	1,483,671	0.34%
1175P-02	Generating Station Electrical Systems - Low Voltage	12,347,137	0.06%	1.47%	181,458	0.04%
1175Q-01	Mechanical Instrumentation, Control and Protection	33,563	0.00%	1.83%	614	0.00%
1175Q-02	Analog Instrumentation, Control and Protection	24,205,357	0.11%	1.44%	349,430	0.08%
1175Q-03	Digital Instrumentation, Control and Protection	35,048,837	0.16%	4.31%	1,509,489	0.34%
1175Q-04	Backup Power Systems	336,145	0.00%	3.65%	12,277	0.00%
1175Q-05	Cyber and Intelligence Security	2,784,614	0.01%	8.19%	228,179	0.05%
1175R-01	Mechanical Auxiliary Systems	41,205,958	0.19%	1.22%	502,242	0.11%
1175R-02	Pressure systems	1,299,783	0.01%	1.37%	17,745	0.00%
1175R-03	Tools and test equipment	78,906	0.00%	6.67%	5,260	0.00%
	LIMESTONE SUBTOTAL	1,467,502,208	6.67%	1.24%	18,146,664	4.13%
	Retired Fully Amortized Plant	2,410,820	0.01%			0.00%
	LIMESTONE TOTAL	**1,469,913,027**	**6.68%**	**1.24%**	**18,146,664**	**4.13%**
WUSKWATIM						
1180A-01	Concrete Dams, Dykes and Substructures	6,713,937	0.03%	0.84%	56,571	0.01%
1180A-02	Embankment Dams and Dykes	938,873	0.00%	0.83%	7,773	0.00%
1180B-01	Superstructures & Support Bldg - Very Long	1,634,801	0.01%	1.03%	16,870	0.00%
1180B-02	Superstructures & Support Bldg - Long	269,820	0.00%	1.38%	3,712	0.00%
1180B-03	Superstructures & Support Bldg - Medium-Long	5,889,279	0.03%	1.93%	113,392	0.03%
1180B-04	Superstructures & Support Bldg - Medium	4,328,911	0.02%	3.11%	134,512	0.03%
1180B-05	Superstructures & Support Bldg - Medium-Short	1,783,388	0.01%	4.59%	81,781	0.02%
1180B-06	Superstructures & Support Bldg - Short	646,764	0.00%	8.30%	53,669	0.01%
1180D-01	Spillway Substructure	2,716,949	0.01%	1.09%	29,745	0.01%
1180D-04	Spillway Superstructure Original construction	862,626	0.00%	1.39%	11,982	0.00%
1180E-01	Water Control Support	2,247,578	0.01%	1.23%	27,720	0.01%
1180F-01	Roads, Grounds and Physical Site Security	2,729,566	0.01%	1.95%	53,352	0.01%
1180G-01	Turbine and Generator Structural and Embedments	370,027	0.00%	1.06%	3,936	0.00%
1180G-02	Turbine Runner - Fixed Blade	1,004,284	0.00%	1.49%	14,976	0.00%
1180G-04	Turbine Regulation	334,744	0.00%	1.78%	5,969	0.00%
1180G-05	Turbine Stationary Parts	440,465	0.00%	1.54%	6,770	0.00%
1180G-06	Generator Frames and Core	792,707	0.00%	1.96%	15,513	0.00%
1180G-07	Generator Rotor	986,804	0.00%	1.51%	14,938	0.00%
1180G-08	Generator Windings	458,094	0.00%	1.88%	8,628	0.00%
1180P-01	Generating Station Electrical Systems - High Voltage	1,654,096	0.01%	1.55%	25,572	0.01%
1180P-02	Generating Station Electrical Systems - Low Voltage	432,762	0.00%	2.35%	10,156	0.00%
1180Q-01	Mechanical Instrumentation, Control and Protection	6,767	0.00%	1.84%	124	0.00%
1180Q-02	Analog Instrumentation, Control and Protection	82,257	0.00%	2.04%	1,682	0.00%
1180Q-03	Digital Instrumentation, Control and Protection	638,904	0.00%	3.69%	23,591	0.01%
1180Q-04	Backup Power Systems	443,992	0.00%	3.54%	15,698	0.00%
1180Q-05	Cyber and Intelligence Security	57,094	0.00%	6.48%	3,702	0.00%
1180R-01	Mechanical Auxiliary Systems	3,273,767	0.01%	1.50%	49,144	0.01%
1180R-02	Pressure systems	225,602	0.00%	1.73%	3,892	0.00%
1180Z-01	Community Development Costs	35,400,112	0.16%	1.06%	373,878	0.09%
	WUSKWATIM TOTAL	**77,364,970**	**0.35%**	**1.51%**	**1,169,250**	**0.27%**
INFRASTRUCTURE						
1199B-02	Superstructures & Support Bldg - Long	32,422,166	0.15%	1.41%	458,389	0.10%
1199B-03	Superstructures & Support Bldg - Medium-Long	27,437,350	0.12%	1.87%	514,193	0.12%
1199B-04	Superstructures & Support Bldg - Medium	46,532,444	0.21%	2.91%	1,353,147	0.31%
1199B-05	Superstructures & Support Bldg - Medium-Short	32,500,211	0.15%	4.15%	1,349,525	0.31%
1199B-06	Superstructures & Support Bldg - Short	17,164,290	0.08%	6.56%	1,125,837	0.26%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
1199F-01	Roads, Grounds and Physical Site Security	31,498,880	0.14%	1.97%	618,954	0.14%
1199Y-01	Municipal Services	71,048,855	0.32%	2.79%	1,983,978	0.45%
1199Z-01	Community Development Costs	3,297,342	0.01%	0.98%	32,310	0.01%
	INFRASTRUCTURE TOTAL	**261,901,539**	**1.19%**	**2.84%**	**7,436,335**	**1.69%**
	HYDRAULIC GENERATION TOTAL	**6,750,702,987**	**30.69%**	**1.49%**	**100,277,037**	**22.82%**
THERMAL GENERATION						
BRANDON 6 AND 7						
1210B-02	Superstructures & Support Bldg - Long	9,665,500	0.04%	0.88%	85,178	0.02%
1210B-03	Superstructures & Support Bldg - Medium-Long	8,802,732	0.04%	1.32%	116,158	0.03%
1210B-04	Superstructures & Support Bldg - Medium	7,897,584	0.04%	1.23%	97,229	0.02%
1210B-05	Superstructures & Support Bldg - Medium-Short	6,926,718	0.03%	0.91%	63,211	0.01%
1210B-06	Superstructures & Support Bldg - Short	2,253,894	0.01%	4.28%	96,400	0.02%
1210F-01	Roads, Grounds and Physical Site Security	4,148,997	0.02%	1.04%	43,192	0.01%
1210G-06	Generator Frames and Core	17,241,946	0.08%	0.98%	169,572	0.04%
1210G-07	Generator Rotor	21,552,432	0.10%	1.00%	215,959	0.05%
1210G-08	Generator Windings	10,237,405	0.05%	1.00%	102,447	0.02%
1210K-01	Combustion Turbine	84,743,704	0.39%	0.91%	771,416	0.18%
1210P-01	Generating Station Electrical Systems - High Voltage	16,432,469	0.07%	1.17%	192,894	0.04%
1210P-02	Generating Station Electrical Systems - Low Voltage	5,825,414	0.03%	1.56%	91,139	0.02%
1210Q-02	Analog Instrumentation, Control and Protection	2,420,426	0.01%	0.02%	426	0.00%
1210Q-03	Digital Instrumentation, Control and Protection	4,494,361	0.02%	1.39%	62,360	0.01%
1210Q-04	Backup Power Systems	8,337	0.00%	4.00%	333	0.00%
1210Q-05	Cyber and Intelligence Security	1,809,585	0.01%	1.43%	25,960	0.01%
1210R-01	Mechanical Auxiliary Systems	36,200,540	0.16%	0.83%	301,836	0.07%
1210R-02	Pressure systems	538,811	0.00%	1.02%	5,495	0.00%
1210R-03	Tools and test equipment	673,722	0.00%	6.67%	44,915	0.01%
	BRANDON 6 AND 7 SUBTOTAL	241,874,578	1.10%	1.03%	2,486,120	0.57%
	Retired Fully Amortized Plant	2,106,441	0.01%			0.00%
	BRANDON 6 AND 7 TOTAL	**243,981,019**	**1.11%**	**1.03%**	**2,486,120**	**0.57%**
	THERMAL GENERATION TOTAL	**243,981,019**	**1.11%**	**1.03%**	**2,486,120**	**0.57%**
DIESEL GENERATION						
1300B-02	Diesel Generation Buildings - Long	2,464,890	0.01%	1.54%	38,050	0.01%
1300B-03	Diesel Generation Buildings - Medium-Long	1,529,932	0.01%	1.72%	26,244	0.01%
1300B-04	Diesel Generation Buildings - Medium	3,783,085	0.02%	1.55%	58,797	0.01%
1300B-05	Diesel Generation Buildings - Medium-Short	1,386,567	0.01%	2.37%	32,876	0.01%
1300B-06	Diesel Generation Buildings - Short	934,958	0.00%	5.97%	55,843	0.01%
1300Q-01	Diesel Accessory Station Equipment - Electrical & Mechanical	10,117,572	0.05%	1.08%	108,917	0.02%
1300Q-02	Diesel Accessory Station Equipment - Fire & Control Systems	8,133,160	0.04%	2.03%	164,959	0.04%
1300Q-03	Diesel Accessory Station Equipment - Heat Recovery Systems	837,744	0.00%	2.94%	24,659	0.01%
1300N	Engines and Generators	21,297,559	0.10%	1.20%	256,194	0.06%
1300T	Fuel Storage and Handling	10,316,521	0.05%	3.03%	312,112	0.07%
	DIESEL GENERATION TOTAL	**60,801,989**	**0.28%**	**1.77%**	**1,078,652**	**0.25%**
TRANSMISSION LINES						
2000F	Road, Trails, and Bridges	12,716,268	0.06%	1.72%	219,008	0.05%
2000G	Metal Towers and Concrete Poles	1,671,075,743	7.60%	1.17%	19,491,326	4.44%
2000J-01	Wood Poles and Fixtures	99,522,008	0.45%	1.61%	1,597,952	0.36%
2000J-02	Wood Cross Arms and Spar Arms	42,954,564	0.20%	1.96%	840,110	0.19%
2000K	Ground Line Treatment	3,163,001	0.01%	7.95%	251,603	0.06%
2000L-01	Overhead Conductor and Devices	791,218,342	3.60%	1.11%	8,813,126	2.01%
2000L-02	Spacer Dampers	80,241,187	0.36%	4.47%	3,586,571	0.82%
2000M	Underground Cable and Devices	18,646,650	0.08%	1.99%	370,450	0.08%
2000Z	Transmission Development Fund	96,310,532	0.44%	1.26%	1,214,368	0.28%
	TRANSMISSION LINES TOTAL	**2,815,848,296**	**12.80%**	**1.29%**	**36,384,514**	**8.28%**
SUBSTATIONS						
3000B-02	Substation Buildings - Long	270,694,874	1.23%	1.35%	3,642,972	0.83%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
3000B-03	Substation Buildings - Medium-Long	81,936,178	0.37%	1.84%	1,505,744	0.34%
3000B-04	Substation Buildings - Medium	215,314,632	0.98%	2.89%	6,228,852	1.42%
3000B-05	Substation Buildings - Medium-Short	140,130,715	0.64%	4.06%	5,693,065	1.30%
3000B-06	Substation Buildings - Short	51,164,075	0.23%	6.66%	3,406,039	0.78%
3000F-01	Roads, Steel Structures and Civil Site Work	1,358,261,460	6.17%	1.75%	23,794,474	5.41%
3000F-02	Ground Grid	60,919,456	0.28%	3.11%	1,894,417	0.43%
3000J	Poles and Fixtures	8,951,203	0.04%	2.03%	181,574	0.04%
3100R-01	AC Power & Grounding Transformers	491,413,525	2.23%	1.80%	8,854,440	2.02%
3100R-02	AC Bushings	76,710,441	0.35%	3.29%	2,520,212	0.57%
3100S-01	AC Other Transformers, Reactors & Regulators	196,702,605	0.89%	2.16%	4,246,449	0.97%
3100S-02	AC Capacitor Banks	31,098,478	0.14%	3.08%	957,346	0.22%
3100T-01	AC Breakers - Air, SF6 & Vacuum	283,877,505	1.29%	2.21%	6,282,663	1.43%
3100T-02	AC Breakers - Oil	19,363,560	0.09%	1.73%	334,844	0.08%
3100T-03	AC Switchgear, Circuit Switchers, & Reclosers	99,042,821	0.45%	2.51%	2,486,903	0.57%
3100U-01	AC Bus, Cable, Hardware & Other Equipment	408,817,137	1.86%	1.48%	6,057,720	1.38%
3100U-02	AC Disconnects, Insulators & Power Fuses	159,241,015	0.72%	1.72%	2,734,277	0.62%
3100U-03	AC Arresters	56,615,484	0.26%	2.52%	1,423,920	0.32%
3100V-01	AC Protection & Control - Electromechanical & Solid State	65,892,872	0.30%	1.65%	1,084,607	0.25%
3100V-02	AC Protection & Control - Digital & Computer	287,769,701	1.31%	3.72%	10,696,209	2.43%
3100V-03	AC Battery Banks & Chargers	39,488,522	0.18%	4.27%	1,685,672	0.38%
3200M-01	HVDC Synchronous Condensers	211,781,161	0.96%	1.51%	3,194,327	0.73%
3200M-02	HVDC Synchronous Condensers - Portion Subject to Overhaul	99,593,962	0.45%	3.89%	3,873,883	0.88%
3200M-03	HVDC Synch Excitation and Unit Transformers	89,491,956	0.41%	1.78%	1,591,900	0.36%
3200P-01	HVDC Converter Transformers	730,985,160	3.32%	2.24%	16,393,134	3.73%
3200P-02	HVDC Converter Equipment - Other	455,832,866	2.07%	2.42%	11,040,850	2.51%
3200S-01	HVDC AC Filters & Measuring Devices	129,584,652	0.59%	1.90%	2,460,662	0.56%
3200S-02	HVDC DC Filters	45,079,071	0.20%	1.97%	886,371	0.20%
3200S-03	HVDC Wall & Transformer Bushings	34,246,295	0.16%	2.31%	791,507	0.18%
3200U-01	HVDC Bus, Cable, Hardware & Other Equipment	138,044,833	0.63%	1.70%	2,345,949	0.53%
3200U-02	HVDC Disconnects & Arresters	65,677,980	0.30%	1.81%	1,190,386	0.27%
3200V-01	HVDC Protection & Control - Electromechanical & Solid State	34,327,950	0.16%	1.38%	475,292	0.11%
3200V-02	HVDC Protection & Control - Digital & Computer	126,967,662	0.58%	3.55%	4,507,951	1.03%
3200V-03	HVDC Battery Banks & Chargers	16,884,215	0.08%	4.26%	720,099	0.16%
3300M-01	Brandon Synchronous Condenser	1,766,856	0.01%	0.05%	947	0.00%
3300M-02	Brandon Synchronous Condenser - Portion Subject to Overhaul	5,551,508	0.03%	0.09%	4,942	0.00%
3300M-03	Brandon Synch - Unit Transformer	353,452	0.00%	1.43%	5,050	0.00%
3300U-01	Brandon Synch - Bus, Cable, Hardware & Other Equipment	2,786,674	0.01%	0.18%	4,901	0.00%
3300V-01	Brandon Synch - Protection & Control - Electromechanical & Solid State	3,198,436	0.01%	0.66%	21,159	0.00%
3300V-02	Brandon Synch - Protection & Control - Digital & Computer	3,086,208	0.01%	0.86%	26,401	0.01%
	SUBSTATIONS TOTAL	**6,598,647,152**	**30.00%**	**2.20%**	**145,248,110**	**33.05%**
DISTRIBUTION LINES						
4001A	Group 1 - Concrete Ductline - MH Constr	26,901,107	0.12%	1.26%	338,422	0.08%
4002A	Group 2 - Concrete Ductline - WH Acq	38,677,546	0.18%	2.28%	880,566	0.20%
4000A	Concrete Ductline	65,578,653	0.30%	0.30%	1,218,988	0.28%
4001B	Group 1 - Concrete Manholes - MH Constr	26,560,157	0.12%	0.12%	342,841	0.08%
4002B	Group 2 - Concrete Manholes - WH Acq	14,887,271	0.07%	0.07%	367,555	0.08%
4000B	Concrete Manholes	41,447,428	0.19%	0.19%	710,396	0.16%
4000D	Concrete Manhole Refurbishment	9,742,007	0.04%	3.36%	327,222	0.07%
4000G	Metal Towers	12,138,708	0.06%	1.60%	194,719	0.04%
4000J	Poles and Fixtures	860,523,469	3.91%	1.26%	10,867,574	2.47%
4000K	Ground Line Treatment	50,696,569	0.23%	5.69%	2,886,874	0.66%
4000L-01	Overhead Conductor and Devices - Conductor	750,677,524	3.41%	1.33%	10,016,772	2.28%
4000L-02	Overhead Conductor and Devices - Insulators	135,088,183	0.61%	1.73%	2,339,016	0.53%

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
4000L-03	Overhead Conductor and Devices - Ground Rod Replacement Program	13,377,471	0.06%	2.82%	377,530	0.09%
4000N-01	Underground Cable and Devices - PILC, HPPT & LPOF	9,038,210	0.04%	1.39%	125,931	0.03%
4000N-02	Underground Cable and Devices - XLPE, RINJ & RIPVCJ	378,936,948	1.72%	2.27%	8,606,911	1.96%
4000N-03	Underground Cable and Devices - TRXLPE	478,040,900	2.17%	1.78%	8,492,744	1.93%
4000Q-01	Serialized Equipment - Pole Mount - Transformers & Other	247,659,826	1.13%	1.83%	4,533,626	1.03%
4000Q-02	Serialized Equipment - Pole Mount - Reclosers	58,109,314	0.26%	7.65%	4,442,780	1.01%
4000S	Serialized Equipment - Pad Mount	260,639,991	1.18%	1.95%	5,092,577	1.16%
4000T	Underground Cable Injection	15,145,190	0.07%	2.46%	371,861	0.08%
4000V	Electronic Equipment	2,949,862	0.01%	15.02%	442,995	0.10%
4000W	Services	83,596,667	0.38%	1.12%	932,157	0.21%
4000X	Street Lighting	220,358,576	1.00%	1.76%	3,878,246	0.88%
	DISTRIBUTION LINES TOTAL	**3,693,745,496**	**16.79%**	**1.78%**	**65,858,917**	**14.99%**
DISTRIBUTION METERS						
4900V	Meters - Electronic	22,540,820	0.10%	6.66%	1,500,647	0.34%
4900W	Metering Exchanges	46,724,135	0.21%	6.73%	3,143,074	0.72%
4900Y	Meters Analog	13,506,423	0.06%	2.60%	351,810	0.08%
4900Z	Metering Transformers	12,550,747	0.06%	1.78%	223,431	0.05%
	DISTRIBUTION METERS TOTAL	**95,322,124**	**0.43%**	**5.48%**	**5,218,962**	**1.19%**
COMMUNICATION						
5000B-01	Communication Buildings - Very Long	4,470,592	0.02%	1.09%	48,654	0.01%
5000B-02	Communication Buildings - Long	3,743,491	0.02%	1.35%	50,646	0.01%
5000B-03	Communication Buildings - Medium-Long	4,167,934	0.02%	2.02%	84,070	0.02%
5000B-04	Communication Buildings - Medium	9,172,181	0.04%	3.00%	275,002	0.06%
5000B-05	Communication Buildings - Medium-Short	7,456,194	0.03%	4.13%	307,742	0.07%
5000B-06	Communication Buildings - Short	3,908,742	0.02%	7.77%	303,645	0.07%
5000G-01	Communication Towers - Structure	14,395,908	0.07%	1.41%	203,081	0.05%
5000G-02	Communication Towers - Lighting	1,332,051	0.01%	2.44%	32,451	0.01%
5000G-03	Communication Towers - Cathodic Protection	525,342	0.00%	3.86%	20,263	0.00%
5000H	Fibre Optic and Metallic Cable	207,483,703	0.94%	2.43%	5,037,577	1.15%
5000J-01	Communication - Battery Banks, Chargers & UPS	29,433,804	0.13%	4.49%	1,320,433	0.30%
5000J-02	Communication - Backup Diesel Generators	7,047,848	0.03%	2.53%	178,258	0.04%
5000J-03	Communication - MW, Optical, Span Line & HVI Carrier Equipment	101,319,160	0.46%	3.74%	3,788,173	0.86%
5000J-04	Communication - Powerline Carrier Electronic Equipment	5,476,539	0.02%	3.87%	212,159	0.05%
5000J-05	Communication - VHF Network Equipment	10,920,576	0.05%	6.15%	671,811	0.15%
5000K-01	Communication - Operational Technology Electronic Displays	2,919,554	0.01%	14.83%	433,111	0.10%
5000K-02	Communication - Operational Technology Servers & Storage	6,120,911	0.03%	12.67%	775,511	0.18%
5000M-01	Communication - VHF Mobile & Handheld Radios	10,124,419	0.05%	8.23%	833,362	0.19%
5000M-02	Communication - Telephones & Video Conferencing	5,381,917	0.02%	5.58%	300,372	0.07%
5000N	Operational Data Network	23,116,986	0.11%	13.21%	3,054,786	0.70%
5000R-02	Communication - Power System Control - Digital	992,757	0.00%	1.18%	11,752	0.00%
5000R-03	Communication - Station Control & Monitoring - Analog/Mechanical	227,223	0.00%	5.77%	13,122	0.00%
5000R-04	Communication - Station Control & Monitoring - Digital	9,048,523	0.04%	2.48%	224,811	0.05%
	COMMUNICATION TOTAL	**468,786,356**	**2.13%**	**3.88%**	**18,180,794**	**4.14%**
MOTOR VEHICLES						
6000E	Passenger Vehicles	966,994	0.00%	9.84%	95,187	0.02%
6000F	Light Trucks	74,182,974	0.34%	7.88%	5,844,783	1.33%
6000G	Heavy Trucks	90,320,443	0.41%	5.65%	5,106,775	1.16%
6000H	Construction Equipment	30,417,023	0.14%	3.54%	1,077,708	0.25%
6000I	Large Soft-Track Equipment	20,402,145	0.09%	3.18%	647,871	0.15%
6000J	Trailers	23,143,252	0.11%	3.09%	715,076	0.16%
6000K	Miscellaneous Vehicles	6,972,075	0.03%	6.97%	485,911	0.11%
	MOTOR VEHICLES TOTAL	**246,404,905**	**1.12%**	**5.67%**	**13,973,312**	**3.18%**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
BUILDINGS						
8000B-01	Admin Building - Very Long	59,649,105	0.27%	1.05%	628,679	0.14%
8000B-02	Admin Building - Long	47,507,703	0.22%	1.45%	690,628	0.16%
8000B-03	Admin Building - Medium Long	101,151,532	0.46%	1.97%	1,993,667	0.45%
8000B-04	Admin Building - Medium	148,484,987	0.67%	3.19%	4,735,990	1.08%
8000B-05	Admin Building - Medium Short	85,151,414	0.39%	4.33%	3,684,326	0.84%
8000B-06	Admin Building - Short	38,040,963	0.17%	7.45%	2,835,254	0.65%
8000F	Leasehold Improvements-Sony Place	57,707	0.00%	10.13%	5,848	0.00%
	BUILDINGS TOTAL	**480,043,411**	**2.18%**	**3.04%**	**14,574,390**	**3.32%**
GENERAL EQUIPMENT						
9000H-01	General Plant - Tools, Shop & Garage Equipment - Electronic	38,022,510	0.17%	16.93%	6,436,949	1.46%
9000H-02	General Plant - Tools, Shop & Garage Equipment - Non-Electronic	39,177,462	0.18%	7.99%	3,129,969	0.71%
9000K-01	General Plant - Computer Equipment - PC's & Peripherals	24,367,160	0.11%	18.58%	4,528,000	1.03%
9000K-02	General Plant - Computer Equipment - Servers & Storage	17,523,966	0.08%	13.74%	2,407,339	0.55%
9000L	Office Furniture & Equipment	28,560,439	0.13%	4.83%	1,380,801	0.31%
9000M	Hot Water Tanks	1,076	0.00%	16.83%	181	0.00%
	GENERAL EQUIPMENT SUBTOTAL	147,652,614	0.67%	12.11%	17,883,238	4.07%
	Retired Fully Amortized Plant	18,299,374	0.08%			0.00%
	GENERAL EQUIPMENT TOTAL	**165,951,987**	**0.75%**	**12.11%**	**17,883,238**	**4.07%**
	PROPERTY, PLANT AND EQUIPMENT TOTAL	**21,620,235,722**	**98.28%**	**1.95%**	**421,164,048**	**95.85%**
EASEMENTS						
A100A	Easements	156,800,616	0.71%	1.33%	2,090,388	0.48%
	EASEMENTS TOTAL	**156,800,616**	**0.71%**	**1.33%**	**2,090,388**	**0.48%**
COMPUTER SOFTWARE AND DEVELOPMENT						
A200G-01	Major Computer Systems - SAP	77,028,467	0.35%	3.68%	2,836,541	0.65%
A200G-02	Major Computer Systems - Banner	21,505,240	0.10%	1.70%	366,153	0.08%
A200G-03	Major Computer Systems - eGIS	23,966,043	0.11%	1.96%	468,768	0.11%
A200G-04	Major Computer Systems - MWM	17,055,411	0.08%	0.29%	48,652	0.01%
A200H-01	Computer Systems and Software - Long (9 - 12 Years)	6,650,923	0.03%	15.39%	1,023,637	0.23%
A200H-02	Computer Systems and Software - Medium (6-8 Years)	30,536,851	0.14%	21.14%	6,455,192	1.47%
A200J-01	Computer Systems and Software - Short (3-5 Years)	10,074,657	0.05%	36.09%	3,635,872	0.83%
A200K	Operational Technology Systems and Software	5,729,299	0.03%	14.85%	851,042	0.19%
A200L	Energy Management System Applications - EMS/SCADA	13,430,074	0.06%	3.59%	481,585	0.11%
	COMPUTER SOFTWARE AND DEVELOPMENT SUBTOTAL	205,976,965	0.94%	7.85%	16,167,441	3.68%
	Retired Fully Amortized Plant	14,832,027	0.07%			0.00%
	COMPUTER SOFTWARE AND DEVELOPMENT TOTAL	**220,808,992**	**1.00%**	**7.85%**	**16,167,441**	**3.68%**
	INTANGIBLE ASSETS TOTAL	**377,609,608**	**1.72%**	**4.84%**	**18,257,830**	**4.15%**
	MANITOBA HYDRO TOTAL	**21,997,845,330**	**100.00%**	**2.00%**	**439,421,877**	**100.00%**

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(1)	(2)	(3)	(4)	(5)	(6)	(7)
WUSKWATIM POWER LIMITED PARTNERSHIP						
HYDRAULIC GENERATION						
1181A-01WPLP	Concrete Dams, Dykes and Substructures	548,351,207	40.91%	0.83%	4,567,815	24.07%
1181A-02WPLP	Embankment Dams and Dykes	29,594,107	2.21%	0.83%	245,829	1.30%
1181B-01WPLP	Superstructures & Support Bldg - Very Long	10,202,071	0.76%	1.01%	103,294	0.54%
1181B-02WPLP	Superstructures & Support Bldg - Long	10,103,122	0.75%	1.37%	138,642	0.73%
1181B-03WPLP	Superstructures & Support Bldg - Medium-Long	41,978,152	3.13%	1.87%	783,007	4.13%
1181B-04WPLP	Superstructures & Support Bldg - Medium	34,600,929	2.58%	2.98%	1,029,551	5.43%
1181B-05WPLP	Superstructures & Support Bldg - Medium-Short	15,800,109	1.18%	4.30%	678,644	3.58%
1181B-06WPLP	Superstructures & Support Bldg - Short	7,248,329	0.54%	7.58%	549,533	2.90%
1181D-01WPLP	Spillway Substructure	85,291,040	6.36%	1.10%	938,262	4.94%
1181D-04WPLP	Spillway Superstructure Original construction	27,040,911	2.02%	1.40%	377,737	1.99%
1181E-01WPLP	Water Control Support	71,683,993	5.35%	1.24%	886,881	4.67%
1181F-01WPLP	Roads, Grounds and Physical Site Security	89,034,420	6.64%	1.96%	1,743,139	9.19%
1181G-01WPLP	Turbine and Generator Structural and Embedments	12,186,427	0.91%	1.07%	130,215	0.69%
1181G-02WPLP	Turbine Runner - Fixed Blade	33,077,443	2.47%	1.50%	496,402	2.62%
1181G-04WPLP	Turbine Regulation	11,025,814	0.82%	1.80%	198,134	1.04%
1181G-05WPLP	Turbine Stationary Parts	14,507,651	1.08%	1.55%	224,453	1.18%
1181G-06WPLP	Generator Frames and Core	26,113,771	1.95%	1.97%	515,477	2.72%
1181G-07WPLP	Generator Rotor	32,497,137	2.42%	1.52%	495,124	2.61%
1181G-08WPLP	Generator Windings	15,087,957	1.13%	1.90%	286,542	1.51%
1181P-01WPLP	Generating Station Electrical Systems - High Voltage	49,113,650	3.66%	1.56%	765,374	4.03%
1181P-02WPLP	Generating Station Electrical Systems - Low Voltage	13,619,041	1.02%	2.39%	325,169	1.71%
1181Q-01WPLP	Mechanical Instrumentation, Control and Protection	208,201	0.02%	1.84%	3,833	0.02%
1181Q-02WPLP	Analog Instrumentation, Control and Protection	2,588,113	0.19%	2.05%	53,127	0.28%
1181Q-03WPLP	Digital Instrumentation, Control and Protection	20,956,533	1.56%	3.78%	791,576	4.17%
1181Q-04WPLP	Backup Power Systems	14,620,404	1.09%	3.68%	537,771	2.83%
1181Q-05WPLP	Cyber and Intelligence Security	2,680,716	0.20%	7.48%	200,437	1.06%
1181R-01WPLP	Mechanical Auxiliary Systems	99,634,010	7.43%	1.53%	1,523,331	8.03%
1181R-02WPLP	Pressure systems	15,375,508	1.15%	1.75%	269,611	1.42%
1181YWPLP	Operational Employment Fund	389,662	0.03%	1.07%	4,167	0.02%
1181ZWPLP	Community Development Costs	750,000	0.06%	1.00%	7,534	0.04%
	HYDRAULIC GENERATION TOTAL	**1,335,360,430**	**99.62%**	**1.41%**	**18,870,613**	**99.45%**
SUBSTATIONS						
3181R-01WPLP	AC Power & Grounding Transformers	4,222,098	0.31%	1.69%	71,278	0.38%
3181R-02WPLP	AC Bushings	259,959	0.02%	2.96%	7,693	0.04%
	SUBSTATIONS TOTAL	**4,482,057**	**0.33%**	**1.76%**	**78,971**	**0.42%**
COMMUNICATION						
5081HWPLP	Fibre Optic & Metallic Cable	150,000	0.01%	2.33%	3,488	0.02%
5081J-03WPLP	MW, Optical, Span Line & HVI Carrier Equipment	20,000	0.00%	3.93%	786	0.00%
5081J-05WPLP	VHF Network Equipment	30,000	0.00%	5.67%	1,701	0.01%
	COMMUNICATION TOTAL	**200,000**	**0.01%**	**2.99%**	**5,975**	**0.03%**
MOTOR VEHICLES						
6081GWPLP	Heavy Trucks	46,325	0.00%	2.73%	1,267	0.01%
6081HWPLP	Construction Equipment	42,012	0.00%	3.84%	1,614	0.01%
6081JWPLP	Trailers	82,208	0.01%	3.02%	2,483	0.01%
6081KWPLP	Miscellaneous Vehicles	54,399	0.00%	5.81%	3,160	0.02%
	MOTOR VEHICLES TOTAL	**224,944**	**0.02%**	**3.79%**	**8,523**	**0.04%**
GENERAL EQUIPMENT						
9081LWPLP	Office Furniture & Equipment	220,589	0.02%	4.98%	10,980	0.06%
	GENERAL EQUIPMENT TOTAL	**220,589**	**0.02%**	**4.98%**	**10,980**	**0.06%**
	WUSKWATIM POWER LIMITED PARTNERSHIP TOTAL	**1,340,488,019**	**100.00%**	**1.42%**	**18,975,062**	**100.00%**

REFERENCE:

Tab 4, Appendix 4.3, page 5, and Tab 9, Appendix 9.11.

PREAMBLE TO IR (IF ANY):

Manitoba Hydro has completed an IFRS-Compliant ASL Study and through the comparison of IFRS-compliant ASL to ELG the company has demonstrated that, regardless of the depreciation method used under IFRS, it is the degree of granularity required that results in the timing difference in total depreciation expense with CGAAP ASL. Since there is no significant difference in total depreciation expense between the ELG and IFRS-compliant ASL methods for all years in the long-term forecast, Manitoba Hydro is recommending IFRS ELG as the method for determining depreciation.

QUESTION:

l) Please conduct and provide an analysis of all sections of IFRS, US GAAP and previous Canadian GAAP related to depreciation and outline the specific requirements in respect of depreciation. Additionally, please explain in detail based on these requirements why those requirements as stated would result in a different amount of depreciation being calculated under each standard.

RATIONALE FOR QUESTION:

Given the materiality of the proposed costs, GSS/GSM requests additional clarity regarding MB Hydro and Alliance's basis for determining an "IFRS-Compliant ASL Book Depreciation Accrual Rate Study".

RESPONSE:

Per the Board findings in Order 9/23 dated January 23, 2022 the PUB directed Manitoba Hydro to provide a response by:

- Referring the GSS/GSM Representative to items already on the record from previous Board hearings and outline what Canadian Generally Accepted Accounting Principles ("Canadian GAAP") states about depreciation compared to International Financial Reporting Standards ("IFRS"); and
- Outlining at a high-level Manitoba Hydro's interpretation of the two IFRS-compliant methodologies and provide a reference to other Information Request responses dealing with the issue.

Manitoba Hydro implemented IFRS for financial reporting purposes in 2015/16 after several years of delays applicable to rate regulated entities while the International Accounting Standards Board finalized the IFRS 14 interim accounting standard. Based on Manitoba Hydro's analysis prior to implementation of IFRS, the following differences were identified in the accounting for property, plant and equipment (PP&E) under IFRS versus prior Canadian GAAP:

- Transition to IFRS:
    - Generally transition to IFRS requires retrospective application and revaluation of PP&E to its fair market value at time of transition.
    - Manitoba Hydro took the transition exemption which allowed entities subject to rate regulation to use the carrying value of their PP&E as deemed cost on transition instead of revaluing its PP&E. Manitoba Hydro applied this deemed cost restatement as a presentation change for financial reporting purposes, maintaining original cost and historical accumulated depreciation in its underlying plant registers to allow for continued determination and application of depreciation rates based on the original historical cost of PP&E.
- Cost model:
    - Under IFRS an entity has the option of choosing either the historical cost model or the revaluation model for recording PP&E.

- Manitoba Hydro chose to continue using the historical cost model, as the revaluation model would have increased the volatility of depreciation expense due to the continuously changing valuation of PP&E.

- Componentization and depreciation:
  - IFRS requirements are similar to GAAP requirements. However, IFRS is more rigorous in terms of identifying separate components and addresses non-physical components of assets. IFRS permits the grouping of assets in determining the depreciation charge and assets can be grouped as long as they are from a homogeneous group, are individually insignificant in value, and have similar useful lives. To the extent assets include components with different lives that would materially impact depreciation, these components must be separately depreciated.
  - To address the depreciation accuracy requirements of IFRS, Manitoba Hydro increased its level componentization and changed from ASL (Average Life Group/ALG) to ELG, which accommodated a lower level of componentization than would have been required under ALG. For further discussion of the accuracy and componentization requirements for IFRS compliance with ALG versus ELG, please refer to the responses to PUB/MH I-109, PUB/MH I-122 and PUB/MH I-131 a-b).
  - The additional componentization and accompanying adjustments to asset service lives were reflected in the 2010 Depreciation Study, which was implemented effective April 1, 2011. As indicated in Order 43/13, Section 6.2.0:

    "The Board accepts the depreciation rates applied April 1, 2011, which rates reflect the changes in service lives and the true-up of the accumulated depreciation surplus for the two test years."
  - Manitoba Hydro's change to ELG has not been accepted by the Board for rate setting purposes. As indicated in Order 43/13, Section 6.2.0:

    "The Board also is concerned that not enough information has been provided to date to assess the true impact on ratepayers of a switch to

Equal Life Group. As such, the Board will require Manitoba Hydro to file additional information, including a determination of depreciation rates and schedules based on the Average Service Life methodology, to provide a meaningful comparison between the two approaches."

- Manitoba Hydro implemented the change to ELG for financial reporting purposes in 2015/16 with an effective implementation date of April 1, 2014, the start of Manitoba Hydro's comparative year on implementation of IFRS. Manitoba Hydro has captured the impact of the change to ELG in the *Change in depreciation methodology* regulatory deferral account since transition to IFRS.
- Manitoba Hydro filed its IFRS-Compliant ASL Depreciation Study (Appendix 9.11) and a comparison of IFRS-compliant ASL versus ELG (Appendix 9.12) as part of this Application in order to address outstanding Directives 8 and 9 from Board Order 43/13. Manitoba Hydro believes that the information in Appendices 9.11 and 9.12 provides the Board with sufficient information to allow for a decision on whether ELG will be accepted for rate making purposes.

- Gains and Losses on Disposal of Assets:
  - As discussed in the response to PUB/MH I-30 a) under prior Canadian GAAP, Manitoba Hydro retained gains and losses within accumulated depreciation. In contrast, IFRS requires that any gains and losses on the disposal or retirement of assets be recognized immediately in income.
  - In Directive 10 of Order 73/15, the Board stated that:

    "Manitoba Hydro is to continue to use its existing Average Service Life Methodology for calculating depreciation rates for rate-setting purposes until the Board is satisfied that a change in methodology is warranted."
  - The Board has not provided any specific direction with respect to Manitoba Hydro's treatment of gains and losses on the disposition of PP&E. However, since the determination of gains and losses is dependent on the depreciation methodology in use, Manitoba Hydro has interpreted the Board's direction for

maintenance of its existing depreciation methodology as applicable to gains and losses in addition to the methodology itself. As such, Manitoba Hydro has recognized gains and losses within depreciation and amortization expense for financial reporting purposes and has captured the impact of this gain/loss recognition in *Loss on retirement or disposal of assets* regulatory deferral account since implementation of IFRS.

- Elimination of Asset Removal Costs from Depreciation Rates:
  - Prior to the implementation of IFRS, Manitoba Hydro's followed the common utility practice of including a negative salvage factor within its depreciation rates which allowed for the pre-collection of future asset removal costs during the life of the assets. This practice is not allowable under IFRS.
  - Effective with the implementation of IFRS, Manitoba Hydro eliminated the negative salvage factor from its depreciation rates. Removal costs incurred since IFRS transition are charged as a cost of the replacement asset where applicable or expensed as part of the loss on disposition of assets where assets are either not replaced, or where the replacement assets are geographically removed from the original assets.
  - Manitoba Hydro's elimination of negative salvage has been accepted by the Board for rate setting purposes. As indicated in Directive 8 of Order 75/15:

    "The removal of net salvage from the 2015/16 depreciation rates in the 2014 Depreciation Study ***BE AND IS HEREBY APPROVED****."*
  - The removal of net salvage from Manitoba Hydro's depreciation rates resulted in a surplus position with respect to Manitoba Hydro's accumulated depreciation variance. Manitoba Hydro addresses accumulated depreciation variances through inclusion of a true-up adjustment to depreciation rates which amortizes the variance over the remaining life of each asset account. As indicated in Order 73/15 Section 6.0, the Board found that:

"The Board accepts the calculated book accumulated depreciation surplus based on the 2014 Gannett Fleming study."

Please see the following links to material from previous Applications which outline the requirements of Canadian GAAP compared to IFRS and provides interpretation of the two IFRS-compliant methodologies (ASL and ELG):

Manitoba Hydro – 2012/13 & 2013/14 General Rate Application Appendix 5.5 IFRS Status Update Report as at April 30, 2012. Please refer to Section 3.3 Property Plant & Equipment which includes discussion of the following:

- Transition Requirements from GAAP to IFRS
- Subsequent to the Transition of IFRS
- Componentization/Depreciation
- Change to Equal Life Group
- Gains and Losses on Disposal of Assets

Manitoba Hydro – 2012/13 & 2013/14 General Rate Application Appendix 5.7 Depreciation Rates and Depreciation Study. Please refer to pages 3-4 which describe the change in methodology to Equal Life Group.

Manitoba Hydro – 2012/13 & 2013/14 General Rate Application MH Exhibit 85 Rebuttal Evidence. Please refer to Section 2.2.3 which discusses Manitoba Hydro's Proposed Change to ELG.

Manitoba Hydro – 2012/13 & 2013/14 General Rate Application MH Exhibit #119 Manitoba Hydro Closing Argument. Please refer to pages 70 -78 for a discussion of ELG vs ASL.

Manitoba Hydro – 2014/15 & 2015/16 General Rate Application Appendix 5.4 IFRS Status Update report. Please refer to Section 3.3 Property Plant & Equipment which includes updated discussion of the following:

- Transition Requirements from GAAP to IFRS
- Subsequent to the Transition of IFRS
- Componentization/Depreciation
- Change to Equal Life Group
- Gains and Losses on Disposal of Assets

Manitoba Hydro – 2015/16 & 2016/17 General Rate Application Appendix 5.6 Depreciation Rates and Depreciation Study. Please refer to Section 3.0 which provides a discussion and quantification of impacts of depreciation expense from the transition to IFRS.

Manitoba Hydro – 2015/16 & 2016/17 General Rate Application Appendix 5.7 Accounting Policy & Estimate Changes. Please refer to Section 3.0 which provides a discussion of accounting policy and estimate changes on IFRS implementation.

Manitoba Hydro – 2015/16 & 2016/17 General Rate Application Rebuttal Evidence of Manitoba Hydro. Please refer to Section 6.0 Manitoba Hydro's Proposed Depreciation Changes are Appropriate for Rate-Setting in a Hydro-Electric Utility.

Manitoba Hydro – 2015/16 & 2016/17 General Rate Application Tab 11 Appendices. Please refer to Appendix 11.49 which provides Manitoba Hydro's first attempt to address outstanding Directive 8 & 9 from Order 43/13.

Manitoba Hydro – 2015/16 & 2016/17 General Rate Application MH Exhibit #75 Direct Evidence Presentation – Depreciation Panel. The following provides an outline of the presentation:

- Outline, Introduction & Background – pages 1-11
- Gannett Fleming ASL vs ELG – pages 12-19
- MHydro IFRS Requirements – pages 20-38

- Dep Studies, IFRS Implementation & AD Surplus – pages 39-50
- MHydro Options for Rate Setting – pages 51-57
- MHydro Reply to Areas of Concern – pages 58-64
- Gannett Fleming Reply to Areas of Concern – pages 65-75
- MHydro – Impact of Changes – p. 76-80

REFERENCE:

Appendix 4.3 Regulatory Deferrals, page 22

PREAMBLE TO IR (IF ANY):

Figure 10 in the subject reference provides a comparison of the number of components required under IFRS Compliant vs. ELG depreciation procedures.

QUESTION:

Given the significantly higher number of depreciable components in the ASL method, does it result in a more accurate calculation of depreciation as compared to ELG. If not, why not?

RESPONSE:

The response below was provided by Alliance Consulting Group (Alliance):

The average life group (ALG) depreciation procedure or the equal life group (ELG) procedure can both be used to recover depreciation for a group of assets. However, the timing of the depreciation accruals is computed differently. As compared to the averaging used in the ALG method, the ELG method takes into account the faster recovery for shorter-lived assets within a group.

The additional level of componentization used in the Alliance ALG study creates more homogeneity of lives within the groups of assets. This allows a more refined recognition of the life differences (and pattern of cost recovery) than was found in the larger groups under ALG used by Manitoba Hydro for regulatory reporting purposes (previous CGAAP ASL).

The goal of the additional componentization in the ALG study is to create a similar recognition of the timing of recovery of assets with different lives as found in the ELG approach. Given that the goal of the additional componentization is to, in a sense, mimic, ELG, ALG would not be considered more accurate than ELG.

REFERENCE:

Appendix 9.9

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please provide a comparison between the component accounts in the Concentric ALG study Schedule 4A with the components related to each account related to the original cost for Point Du Bois and explain the changes.
b) Please articulate the level of materiality used in determining the level of componentization used in the ALS study.
c) Please indicate to what extent each of the components identified in the study sub-category of an asset that meets both of the following criteria:
   i. Replacement value is material enough to track.
   ii. A need to replace the component does not necessarily warrant replacing the entire asset.

RESPONSE:

The following responses were provided by Alliance Consulting Group (Alliance):

a) For hydraulic generating stations sub-componentization was determined for the system as a whole and then applied to the individual generating stations. The original cost of $88,959,223 for Pointe Du Bois as of March 31, 2019 is equal in both the Concentric ALG study Schedule 4A and the Alliance ALG study Appendix 9.11, page 165. Attachment 1 provides the mapping of the original cost by source account shown in the Concentric study to the subcomponent accounts used in the Alliance study. Subcomponent accounts were created to reflect the different life characteristics of the different retirement units within each source account. Please note that Pointe Du Bois is not fully representative of other Hydraulic Generating Stations for Manitoba since it was acquired by Manitoba later in the life of the GS.

b) There was no rigid criterion for materiality. Judgement was used by Alliance to subcategorize accounts by evaluating the mix of assets, amount of investment, and estimated service lives of the assets within each existing source account. Alliance completed data evaluation, statistical life analysis, and had detailed discussions with Manitoba subject matter experts from various areas of the Company including operations, management, and finance to determine whether a specific asset within a source account was significant compared to the overall amount of investment and had a unique lifecycle different from that of the life assigned to the source account.

c) Manitoba Hydro's Asset Accounting Handbook identifies assets eligible for capitalization on replacement (retirement units). These retirement units are separately tracked in the Company's Continuing Property Records and when replaced, would be retired and recapitalized. All subcomponents in the study were at or above the level of a retirement unit and would fulfill both criteria.

Mapping Original Cost at 3/31/2019 - Pointe Du Bois Generating Station (1110)

Concentric ALG study Schedule 4A Data			Alliance ALG study Appendix 9.11, page 165		
Source Account	**Source Account Description**	**Original Cost at 3/31/2019**	**SubComponent Account**	**SubComponent Account Description**	**Total**
1110A	DAMS, DYKES AND WEIRS	356,536	1110A-06	Embankment Dams and Dykes Refurbishments	184,618
			1110A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	171,918
1110A Total					356,536
1110B	POWERHOUSE	3,733,852	1110A-01	Concrete Dams, Dykes and Substructures	174,465
			1110A-02	Embankment Dams and Dykes	58,155
			1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	371,411
			1110A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	1,593,233
			1110B-01	Superstructures & Support Bldg - Very Long	6,979
			1110B-03	Superstructures & Support Bldg - Medium-Long	2,655
			1110B-04	Superstructures & Support Bldg - Medium	1,131,776
			1110B-05	Superstructures & Support Bldg - Medium-Short	9,305
			1110B-06	Superstructures & Support Bldg - Short	385,875
1110B Total					3,733,852
1110C	POWERHOUSE RENOVATIONS	2,790,272	1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	603,984
			1110B-04	Superstructures & Support Bldg - Medium	486,688
			1110B-05	Superstructures & Support Bldg - Medium-Short	1,564,606
			1110B-06	Superstructures & Support Bldg - Short	5,269
			1110P-02	Generating Station Electrical Systems - Low Voltage	102,179
			1110Q-05	Cyber and Intelligence Security	27,545
1110C Total					2,790,272
1110E	WATER CONTROL SYSTEMS	1,011,906	1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	208,201
			1110D-02	Spillway Refurbishment	142,469
			1110E-01	Water Control Support	661,236
1110E Total					1,011,906
1110F	ROADS AND SITE IMPROVEMENTS	1,481,524	1110F-01	Roads, Grounds and Physical Site Security	1,481,524
1110F Total					1,481,524
1110G	TURBINES AND GENERATORS	57,535,146	1110E-01	Water Control Support	71,886
			1110G-01	Turbine and Generator Structural and Embedments	752,831
			1110G-02	Turbine Runner - Fixed Blade	43,280,798
			1110G-04	Turbine Regulation	3,215,897
			1110G-05	Turbine Stationary Parts	3,480,389
			1110G-06	Generator Frames and Core	1,010,297
			1110G-07	Generator Rotor	303,637
			1110G-08	Generator Windings	4,953,963
			1110Q-03	Digital Instrumentation, Control and Protection	160,838
			1110R-01	Mechanical Auxiliary Systems	304,610
1110G Total					57,535,146
1110H	GOVERNORS AND EXCITATION SYSTEM	261,220	1110Q-01	Mechanical Instrumentation, Control and Protection	261,220
1110H Total					261,220
1110L	LICENCE RENEWAL	185,103	1110L-01	GS Licensing - No Subcomponents	185,103
1110L Total					185,103
1110P	A/C ELECTRICAL POWER SYSTEMS	9,633,911	1110B-04	Superstructures & Support Bldg - Medium	332,414
			1110B-05	Superstructures & Support Bldg - Medium-Short	31,174
			1110B-06	Superstructures & Support Bldg - Short	10,391
			1110P-01	Generating Station Electrical Systems - High Voltage	7,133,827
			1110P-02	Generating Station Electrical Systems - Low Voltage	2,109,256
			1110Q-02	Analog Instrumentation, Control and Protection	13,757
			1110R-01	Mechanical Auxiliary Systems	3,092
1110P Total					9,633,911

Mapping Original Cost at 3/31/2019 - Pointe Du Bois Generating Station (1110)

Concentric ALG study Schedule 4A Data		
Source Account	**Source Account Description**	**Original Cost at 3/31/2019**
1110Q	INSTRUMENTATION, CONTROL AND D/C SYSTEMS	2,130,167
1110Q Total		
1110R	AUXILIARY STATION PROCESSES	8,139,134
1110R Total		
1110W	SUPPORT BUILDING RENOVATIONS	697,897
1110W Total		
1110X	SUPPORT BUILDINGS	1,002,556
1110X Total		
Total Pointe Du Bois Balance		88,959,223

Alliance ALG study Appendix 9.11, page 165		
SubComponent Account	**SubComponent Account Description**	**Total**
1110P-02	Generating Station Electrical Systems - Low Voltage	14,260
1110Q-03	Digital Instrumentation, Control and Protection	594,847
1110Q-04	Backup Power Systems	260,952
1110Q-05	Cyber and Intelligence Security	1,260,108
		2,130,167
1110A-06	Embankment Dams and Dykes Refurbishments	18,160
1110B-03	Superstructures & Support Bldg - Medium-Long	1,085,897
1110B-04	Superstructures & Support Bldg - Medium	883,282
1110B-05	Superstructures & Support Bldg - Medium-Short	331,200
1110B-06	Superstructures & Support Bldg - Short	113,114
1110Q-03	Digital Instrumentation, Control and Protection	145,299
1110Q-04	Backup Power Systems	388,613
1110R-01	Mechanical Auxiliary Systems	4,727,708
1110R-02	Pressure systems	445,860
		8,139,134
1110B-04	Superstructures & Support Bldg - Medium	113,658
1110B-05	Superstructures & Support Bldg - Medium-Short	553,282
1110B-06	Superstructures & Support Bldg - Short	30,956
		697,897
1110B-02	Superstructures & Support Bldg - Long	129,147
1110B-03	Superstructures & Support Bldg - Medium-Long	80,160
1110B-04	Superstructures & Support Bldg - Medium	579,367
1110B-05	Superstructures & Support Bldg - Medium-Short	148,519
1110B-06	Superstructures & Support Bldg - Short	65,363
		1,002,556
	Total Pointe Du Bois Balance	88,959,223

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REFERENCE:

Reference: Tab 4, Appendix 4.3 pg.13 Regulatory Deferrals - 1.4.3

PREAMBLE TO IR (IF ANY):

In its application, Manitoba Hydro recognizes that a change to the IFRS ELG method for determining depreciation for rate-setting purposes will have implications on the existing two deferral accounts for the change in depreciation method and the loss on retirement of disposal of assets which were established to retain the use of CGAAP ASL for rate setting purposes as directed by the PUB.

Manitoba Hydro has recorded interim losses/gains totalling $74.4 million years prior to and including 2017/18 through 2024/25.

QUESTION:

a) Describe the previous CGAAP policy followed by Manitoba Hydro related to dealing with interim losses on the removal of assets from service.
b) Please confirm that interim losses/gains included in the regulatory deferral accounts since the implementation of IFRS were determined using the ELG methodology of depreciation.
c) Please explain why a transition to the ELG methodology would require eliminating the regulatory practice related to deferring and amortizing gains and losses on the retirement of the disposal of assets allowed under IFRS 14.
d) Please provide an updated Figure 6 amortizing the interim losses and gains on retirements over the expected remaining service life or five years, on a similar basis as MH addresses book accumulated depreciation variances and discuss the merits of this approach.
e) Please provide an updated Figure 6 amortizing the interim losses and gains on retirements over 5 years and discuss the merits of this approach.

RESPONSE:

a) Prior to the implementation of IFRS, Manitoba Hydro applied the previous CGAAP provision allowing for the application of industry standard practices pertaining to property, plant and equipment. This provision is no longer available under current CGAAP and Manitoba Hydro is required to report under IFRS. Under previous CGAAP, the following treatment was applied to gains and losses on the disposition of assets:

- Gains on the disposition of land were recognized as other income at the time of sale.
- Gains or losses on the terminal disposition and discontinuation of a property account were recognized within net income in the year in which the final asset in the account was retired.
- Gains or losses on disposition of plant and equipment other than land and terminally retired assets were retained within accumulated depreciation, impacting the accumulated depreciation variance of each account and were in effect amortized over the remaining life of the assets in the account through inclusion of a true-up adjustment to depreciation rates in subsequent depreciation studies.

b) Confirmed. The loss on retirement or disposal of assets deferral account contains gains and losses realized since the implementation of IFRS which were determined using the ELG procedure for group depreciation. Use of this deferral account has served to eliminate the income statement impact resulting from the IFRS requirement to recognize gains and losses at the time of disposition of plant and equipment.

c) A transition to the ELG procedure for group depreciation does not mandate elimination of the existing loss on retirement or disposal of assets deferral account regulatory deferral account. As discussed in Appendix 4.3, Manitoba Hydro has recommended discontinuation and amortization of this deferral account as part of the broader recommendation for the PUB to accept IFRS accounting for property, plant and equipment which includes recognition of gains and losses as incurred. Amortization is a straightforward approach for recovery of the costs that have deferred since the transition to IFRS.

d) Figure 1 below shows the expected growth in depreciation related regulatory deferral accounts with continued deferral, and amortization of the loss on retirement or disposal of assets deferral account over the expected remaining service life of the accounts contributing to the balance. Please refer to part e) below for the implication amortizing this deferral account over 5 years.

Figure 1 Expected Growth in Depreciation Method Regulatory Deferral Account Balances with Amortization of Loss on Retirement or Disposal of Assets over Remaining Service Life

Depreciation Method Regulatory Deferral Accounts with Amortization of Loss on Retirement or Disposal of Assets over Remaining Service Life										
(in Millions)	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Change in Depreciation Method	$ 288	$ 343	$ 398	$ 454	$ 511	$ 570	$ 631	$ 693	$ 757	$ 823
Loss on Retirement or Disposal of Assets	67	70	71	72	72	71	71	71	70	70
Opening balance - depreciation method deferrals	355	413	469	526	583	641	702	764	827	893
Change in Depreciation Method	55	55	56	57	59	61	62	64	66	68
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	58	58	59	60	62	64	65	67	69	71
Change in Depreciation Method	-	-	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)
Amortization - depreciation method deferrals	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)
Change in Depreciation Method	343	398	454	511	570	631	693	757	823	891
Loss on Retirement or Disposal of Assets	70	71	72	72	71	71	71	70	70	69
Closing balance - depreciation method deferrals	$ 413	$ 469	$ 526	$ 583	$ 641	$ 702	$ 764	$ 827	$ 893	$ 960

	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Change in Depreciation Method	$ 891	$ 961	$ 1,034	$ 1,109	$ 1,186	$ 1,266	$ 1,348	$ 1,433	$ 1,520	$ 1,610
Loss on Retirement or Disposal of Assets	69	68	67	66	65	64	63	61	60	58
Opening balance - depreciation method deferrals	960	1,029	1,101	1,175	1,251	1,330	1,411	1,494	1,580	1,668
Change in Depreciation Method	70	73	75	77	80	82	85	87	90	93
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	73	76	78	80	83	85	88	90	93	96
Change in Depreciation Method	-	-	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(5)	(5)	(5)
Amortization - depreciation method deferrals	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(5)	(5)	(5)
Change in Depreciation Method	961	1,034	1,109	1,186	1,266	1,348	1,433	1,520	1,610	1,703
Loss on Retirement or Disposal of Assets	68	67	66	65	64	63	61	60	58	56
Closing balance - depreciation method deferrals	$ 1,029	$ 1,101	$ 1,175	$ 1,251	$ 1,330	$ 1,411	$ 1,494	$ 1,580	$ 1,668	$ 1,759

The merit of amortizing the loss on retirement or disposal of assets is that a recovery mechanism is established for this deferral account. A recovery mechanism ensures compliance with IFRS 14 which requires evidence that deferred amounts will be recovered or refunded in future rates. As indicated in PUB/MH I-118 c), based on the Electricity Canada survey conducted by Manitoba Hydro, all other Canadian utilities responding have recovery mechanisms established for their regulatory deferral accounts.

Manitoba Hydro has proposed use of an amortization period which is a straightforward approach for recovery of these costs. As discussed in Appendix 4.3 when proposing amortization periods Manitoba Hydro aims to strike a balance between customer and utility priorities, considering both intergenerational equity and the need for stable and predictable rates.

Figure 1 above demonstrates that amortizing this regulatory deferral over the expected remaining service life of the accounts contributing to the balance would have a minimal annual impact and as such supports Manitoba Hydro's objective of providing value to its customers through stable and predictable rates while ensuring recoverability of this regulatory deferral.

Regardless of the amortization period selected, the impact to net income would be relatively low as the balance in the account is small compared to Manitoba Hydro's depreciation related regulatory deferral accounts. Any approach to amortization would provide a benefit as it provides a defined mechanism for recovering these costs.

e) Figure 2 below shows the expected growth in depreciation related regulatory deferral accounts with continued deferral, and amortization of the Loss on Retirement or Disposal of Assets deferral account over five years.

Figure 2 Expected Growth in Depreciation Method Regulatory Deferral Account Balances with Amortization of Loss on Retirement or Disposal of Assets over Five Years

Depreciation Method Regulatory Deferral Accounts with Amortization of Loss on Retirement or Disposal of Assets over Five Years (in Millions)	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Change in Depreciation Method	$ 288	$ 343	$ 398	$ 454	$ 511	$ 570	$ 631	$ 693	$ 757	$ 823
Loss on Retirement or Disposal of Assets	67	70	65	53	40	27	13	8	8	8
Opening balance - depreciation method deferrals	355	413	463	507	551	597	644	701	765	831
Change in Depreciation Method	55	55	56	57	59	61	62	64	66	68
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	58	58	59	60	62	64	65	67	69	71
Change in Depreciation Method	-	-	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	-	(8)	(15)	(15)	(16)	(17)	(9)	(3)	(3)	(3)
Amortization - depreciation method deferrals	-	(8)	(15)	(15)	(16)	(17)	(9)	(3)	(3)	(3)
Change in Depreciation Method	343	398	454	511	570	631	693	757	823	891
Loss on Retirement or Disposal of Assets	70	65	53	40	27	13	8	8	8	8
Closing balance - depreciation method deferrals	$ 413	$ 463	$ 507	$ 551	$ 597	$ 644	$ 701	$ 765	$ 831	$ 899

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
Change in Depreciation Method	$ 891	$ 961	$ 1,034	$ 1,109	$ 1,186	$ 1,266	$ 1,348	$ 1,433	$ 1,520	$ 1,610
Loss on Retirement or Disposal of Assets	8	8	8	8	8	8	8	8	8	8
Opening balance - depreciation method deferrals	899	969	1,042	1,117	1,194	1,274	1,356	1,441	1,528	1,618
Change in Depreciation Method	70	73	75	77	80	82	85	87	90	93
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	73	76	78	80	83	85	88	90	93	96
Change in Depreciation Method	-	-	-	-	-	-	-	-	-	-
Loss on Retirement or Disposal of Assets	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Amortization - depreciation method deferrals	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Change in Depreciation Method	961	1,034	1,109	1,186	1,266	1,348	1,433	1,520	1,610	1,703
Loss on Retirement or Disposal of Assets	8	8	8	8	8	8	8	8	8	8
Closing balance - depreciation method deferrals	$ 969	$ 1,042	$ 1,117	$ 1,194	$ 1,274	$ 1,356	$ 1,441	$ 1,528	$ 1,618	$ 1,711

As discussed in part d) above, the merits of amortizing the loss on retirement or disposal of assets is that a recovery mechanism is established for this deferral account.

Figure 2 above demonstrates that amortizing this regulatory deferral over five years would have a relatively small annual impact from 2023/24 to 2028/29 and no impact beyond 2028/29 as the annual deferral would be equal to the amortization expense.

As discussed in PUB/MH I-114, the balance in the Loss on retirement or disposal of assets is comprised primarily of losses on discontinued operations and the cost of removal for assets which were not replaced. Since these assets no longer exist, there is no benefit to future customers. Consequently, use of a five-year amortization period for recovery better matches the timing of recovery of costs to the associated (past) benefit and supports the principle of intergenerational equity.

Regardless of the amortization period selected, the impact to net income would be relatively low as the balance in the account is small compared to Manitoba Hydro's depreciation related regulatory deferral accounts. Any approach to amortization would provide a benefit as it provides a defined mechanism for recovering these costs.

REFERENCE:

Appendix 4.3 page 17

PREAMBLE TO IR (IF ANY):

Figure 6 provides a table with the Expected Growth in Depreciation Method Regulatory Deferral Account Balances.

QUESTION:

Over the service life of the underlying assets, will the "Loss on Retirement or Disposal of Assets" balance out with any gains on such assets? If not, why not?

RESPONSE:

Although depreciation theory indicates that losses and gains on asset retirements will balance out over time, in practice this offset will not be realized by Manitoba Hydro. The $67 million of losses deferred by Manitoba Hydro to March 31, 2022 include $24 million in losses on continuing operations and $43 million in losses on discontinued operations.

Losses on continuing operations include the cost to remove assets which are not replaced. With the elimination of negative salvage from Manitoba Hydro's depreciation rates approved by the PUB in Order 73/15, this cost of removal is incremental to the ELG base calculation of gains and losses and will not be recovered through the theoretically expected offset. Of the $24 million loss on continuing operations, $23 million is cost of removal. The forecast future losses of $3 million per year is based on the 8-year average of historical losses on continuing operations, and as such, is comprised primarily of cost of removal for which there will not be any future offset.

Losses on discontinued operations are not expected to recur and as such have not been included when determining the forecast of future losses, but as these losses pertain to generating stations which are no longer operating, there will not be any future gains to offset these amounts.

REFERENCE:

PUB/MH I-30a-e

PREAMBLE TO IR (IF ANY):

QUESTION:

Please comment on whether an approach of amortizing interim gains and losses over the expected average remaining service life of the accounts contributing to the balance would be consistent with prior accounting practices.

RESPONSE:

As discussed in the response to PUB/MH I-30a under previous CGAAP, losses on discontinued operations were expensed as incurred, and gains and losses on continuing operations were retained in accumulated depreciation and in effect amortized over the remaining life of the applicable plant accounts through depreciation expense.

As indicated in the response to PUB/MH I-114, the $67 million of losses deferred by Manitoba Hydro to March 31, 2022 includes $24 million in losses on continuing operations and $43 million in losses on discontinued operations. As such, the following treatment for the *Loss on disposal or retirement of assets* regulatory deferral account would be consistent with prior accounting practices:

- Write off $43 million, the discontinued operations portion of the balance.
- Amortize $24 million, the continuing operations portion of the balance over the expected average remaining service life of the accounts contributing to the balance.

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Manitoba Hydro is proposing not to defer these costs. If costs were deferred and amortized there would be no benefit to customers after 2027/28. From 2030/31 and on the annual amount deferred would equally offset the annual amount amortized, as shown in Figure 4.

Figure 4 Impact to Net Income – Establishment and Amortization of SAP S/4HANA CCA deferral

Benefit to Customers **Deferral of Small Software Systems CCA** ***(in Millions)***	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31 & On**
CCA Costs	$ 13.00	$ 8.50	$ 8.50	$ 8.50	$ 8.50	$ 8.50	$ 8.50	$ 8.50
CCA Amortization if Deferred	(1.08)	(2.88)	(4.29)	(5.71)	(7.13)	(8.54)	(8.88)	(8.50)
Benefit to customers - deferral of recurring CCA costs	**$ 11.92**	**$ 5.63**	**$ 4.21**	**$ 2.79**	**$ 1.38**	**$ (0.04)**	**$ (0.38)**	**$ -**

1.4.3 Existing Depreciation Methodology for Rate Setting Purposes

In response to Directives 8 & 9 of Order 43/13 and Directive 17 of Order 59/18, Manitoba Hydro has undertaken a comprehensive review of its depreciation methodologies and has obtained a detailed depreciation study (IFRS-Compliant ASL Study) as requested by the PUB. Based on this review, Manitoba Hydro is advancing several recommendations for the PUB's approval in relation to the depreciation methodology applied for rate setting purpose and regulatory deferral accounts associated with depreciation. The findings from Manitoba Hydro's review and the resulting recommendations being advanced by Manitoba Hydro are as follows:

- **Need for an amortization period:** The cumulative regulatory deferral balance related to depreciation methodology for rate setting purposes (including gains and losses) has grown to $355 million. If an amortization period is not established for this deferral, the balance will continue to grow to $1.8 billion by the end of the 20-year forecast period. Continuing to defer these costs without a recovery mechanism has several impacts. Firstly, Manitoba Hydro is unable to fully recover its plant asset costs while the assets are in use. Unrecovered costs are pushed out to future customers who will not receive the benefits from these assets, which is contrary to the principle of intergenerational equity. Additionally, from an external audit perspective, PUB approval of an amortization period for this deferral account will demonstrate that the deferral has future value to the utility in terms of the ability to generate cash inflows from rates and as such, the account qualifies for recognition as an asset.
- **Depreciation and gains and losses to be considered together:** The magnitude of gains and losses is directly attributable to the accuracy of the depreciation method applied and provides a measurement of the costs which have been over or under recovered during

the life of retired assets. Therefore, it follows that a decision on the depreciation methodology for rate setting purposes should consider both depreciation expense and gains and losses on the retirement or disposal of assets. There is a difference between gains and losses calculated on property, plant, and equipment under each depreciation methodology (ELG and ASL). The increased precision within the ELG calculation results in lower gains and losses since depreciation is more closely matched to the actual service life of the asset. The accounting/rate setting treatment for the gains and losses under either method should be matched to the accounting/rate setting treatment for the depreciation methodology so that both the depreciation expense and the gains and losses are recovered in the same manner from customers. It would be consistent with the principle of intergenerational equity to choose the same method of accounting for the difference in depreciation expense and the differences in gains and losses.

- **IFRS-compliant ASL depreciation expense including gains and losses is similar to ELG**: Manitoba Hydro engaged an independent third-party consultant to perform an IFRS-compliant ASL depreciation study. The study demonstrated that 410 additional components are required to meet IFRS depreciation accuracy standards using an ASL methodology. Manitoba Hydro has completed a comparison between ELG and IFRS-compliant ASL depreciation methodology (Appendix 9.12) which demonstrates that the difference in total expense between the two procedures is immaterial in all years of the 20-year forecast. It is evident from this comparison that the accuracy requirement of IFRS is the reason for the increase in expense and not the depreciation methodology. Due to the requirement to add 410 additional asset components and to have to restate financial results back to fiscal 2014/15, implementing an IFRS-compliant ASL method would be an extremely time consuming and costly project that would yield little benefit to Manitoba Hydro's customers relative to the costs. Due to the similarity in total expense between the two methodologies Manitoba Hydro is recommending IFRS ELG for rate setting purposes.

- **Phasing-in the change to IFRS ELG**: Manitoba Hydro recognizes that changing to an IFRS-compliant depreciation methodology for rate setting purposes would result in a significant impact to customers due to the timing difference currently recognized between CGAAP ASL and IFRS (approximately $58 million annually). As a means to mitigate this impact on customer rates, Manitoba Hydro recommends slowly phasing-in the change to an IFRS ELG method of depreciation for rate setting purposes by reducing the deferral amount annually over a time frame of 15 years. The 15-year time frame will

minimize related rate increases and support the customers' interest in stable and predictable rates. Manitoba Hydro is seeking PUB approval to establish a regulatory deferral account to accomplish this phase-in approach.

- **Amortization of existing depreciation methodology deferrals**: Manitoba Hydro recognizes that a change to the IFRS ELG method for determining depreciation for rate setting purposes will have implications on the existing two deferral accounts for the change in depreciation method and the loss on retirement of disposal of assets which were established to retain the use of CGAAP ASL for rate setting purposes as directed by the PUB. The existing balances in these accounts will need to be addressed as part of the transition from CGAAP ASL to IFRS ELG as the balances represent differences in costs that have yet to be recognized into income for rate setting purposes and as such, cannot remain unamortized in perpetuity.

In summary, Manitoba Hydro is requesting the following approvals from the PUB regarding its recommendation to adopt IFRS ELG for rate setting purposes:

- Approve IFRS for determining depreciation for rate setting purposes.
- Approve ELG as the method for determining depreciation.
- Approve the cessation of additions to the Change in Depreciation Method deferral, approve an amortization period for this account and begin amortizing the balance into income on a straight-line basis.
- Approve the cessation of additions to the Loss on Retirement or Disposal of Assets deferral, approve an amortization period for this account and begin amortizing the balance into income on a straight-line basis.
- Approve a new regulatory deferral account and amortization period to smooth the differences caused by the transition of depreciation expense and recognition of gains and losses on disposition of assets from CGAAP to IFRS.

1.4.4 Need for Amortization Periods for Existing Depreciation Deferral Accounts

It is imperative that amortization periods are established for the balance in the existing depreciation methodology deferrals in order to ensure these costs are recovered from customers over a period of time that is in accordance with the regulatory principle of matching. Continuing to defer these costs without a recovery mechanism would push these

costs to future customers that have not received the full benefit and compromises the principle of intergenerational equity.

Manitoba Hydro has been deferring the difference between IFRS ELG for financial reporting purposes and CGAAP ASL for rate setting purposes since 2014/15 in compliance with Orders 59/18, 73/15 & 43/13. This has resulted in a cumulative deferred balance of $355 million which includes both the Change in depreciation method deferral and the Loss on retirement or disposal of assets deferral. The breakdown of the deferred balance is shown in Figure 5:

Figure 5 Depreciation Method Regulatory Deferral Account Balances at March 31, 2022

Regulatory Deferral Depreciation Accounts *(in Millions)*	**Balance March 31, 2022**
Change in depreciation method - Electric	$ 269
Change in depreciation method - WPLP	14
Change in depreciation method - KHLP	5
	288
Loss on retirement or disposal of assets - Electric	69
Loss on retirement or disposal of assets - WPLP	(2)
Loss on retirement or disposal of assets - KHLP	-
	67
Total Unamortized Regulatory Deferral for Depreciation Accounts	**$ 355**

Manitoba Hydro currently defers approximately $58 million annually to record the Change in depreciation method and Loss on retirement or disposal of assets deferrals for rate setting purposes. This amount is expected to grow to $96 million annually over the 20-year forecast as more assets are added to the asset base, as reflected in Figure 6 below. Given that ongoing asset additions cost significantly more than the aged assets they are replacing, it is reasonable to assume the current accounting treatment will result in a perpetually growing deferred balance which is an important consideration as to the future evaluation of the rate setting impacts of this deferral.

If a recovery mechanism (i.e. amortization period) is not established for the depreciation deferral accounts, the $355 million balance will grow to $1.8 billion over the 20-year forecast. Continuing to defer these costs without a recovery mechanism would push these costs to future customers who did not receive the full benefit from the respective assets, compromising the principle of intergenerational equity. In addition, as the balance grows to

billions of dollars, it will become increasingly difficult for the utility to demonstrate to its auditors that the deferral accounts will be recovered in future rates.

Figure 6 Expected Growth in Depreciation Method Regulatory Deferral Account Balances

Depreciation Method Regulatory Deferral Accounts (in Millions)	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Change in Depreciation Method	$ 288	$ 343	$ 398	$ 454	$ 511	$ 570	$ 631	$ 693	$ 757	$ 823
Loss on Retirement or Disposal of Assets	67	70	73	76	79	82	85	88	91	94
Opening balance - depreciation method deferrals	355	413	471	530	590	652	716	781	848	917
Change in Depreciation Method	55	55	56	57	59	61	62	64	66	68
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	58	58	59	60	62	64	65	67	69	71
Change in Depreciation Method	343	398	454	511	570	631	693	757	823	891
Loss on Retirement or Disposal of Assets	70	73	76	79	82	85	88	91	94	97
Closing balance - depreciation method deferrals	$ 413	$ 471	$ 530	$ 590	$ 652	$ 716	$ 781	$ 848	$ 917	$ 988

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
Change in Depreciation Method	$ 891	$ 961	$ 1,034	$ 1,109	$ 1,186	$ 1,266	$ 1,348	$ 1,433	$ 1,520	$ 1,610
Loss on Retirement or Disposal of Assets	97	100	103	106	109	112	115	118	121	124
Opening balance - depreciation method deferrals	988	1,061	1,137	1,215	1,295	1,378	1,463	1,551	1,641	1,734
Change in Depreciation Method	70	73	75	77	80	82	85	87	90	93
Loss on Retirement or Disposal of Assets	3	3	3	3	3	3	3	3	3	3
Additions - depreciation method deferrals	73	76	78	80	83	85	88	90	93	96
Change in Depreciation Method	961	1,034	1,109	1,186	1,266	1,348	1,433	1,520	1,610	1,703
Loss on Retirement or Disposal of Assets	100	103	106	109	112	115	118	121	124	127
Closing balance - depreciation method deferrals	$ 1,061	$ 1,137	$ 1,215	$ 1,295	$ 1,378	$ 1,463	$ 1,551	$ 1,641	$ 1,734	$ 1,830

In order to apply IFRS ELG for financial reporting purposes while continuing to use the CGAAP ASL depreciation method for rate setting purposes, Manitoba Hydro was required to establish a regulatory deferral account to defer the annual difference in depreciation between the two methods. In addition, Manitoba Hydro was required to establish a deferral account to defer the ELG gains and losses in order to maintain CGAAP ASL for rate setting purposes per Order 59/18 Directive 17.

> *"Manitoba Hydro continue to use its existing Average Service Life methodology for calculating depreciation rates for rate-setting purposes, without reversion to Equal Life Group in the financial forecast. Manitoba Hydro shall not amortize the difference between Average Service Life and Equal Life Group for rate setting."*

Under CGAAP, these amounts would have been retained within accumulated depreciation and recovered through future depreciation rates, but with the current regulatory deferral treatment, there is no mechanism in place to recover these costs in revenue requirement for rate setting purposes.

Manitoba Hydro believes that our customers and future customers are best served by not deferring the difference in total depreciation expense (including gains and losses) between IFRS and CGAAP over an extensively long period such that the balances would grow into billions of dollars.

1.4.5 Gains and Losses and their Relationship to Depreciation Expense

Depreciation decisions for rate setting purposes should consider both depreciation expense and gains and losses on retirement or disposal of assets. The calculation of gains and losses is dependent on the depreciation methodology used and as such, should be considered together with depreciation expense.

Under ELG, depreciation expense is higher for Manitoba Hydro given the age composition of its current asset base, and asset retirement gains and losses are lower due to the increased precision in depreciation calculations during the life of the asset, which more accurately reflect the service lives of the individual assets within each depreciable component. Effectively, the ELG method provides better matching of depreciation expense with the useful lives of the assets, which is reflected by the relatively low gains or losses recognized on retirement under ELG.

Under ASL, depreciation expense is lower (compared to ELG) for Manitoba Hydro given the age composition of its current asset base and asset retirement gains and losses are higher as the average depreciation calculation is less accurate relative to the service lives of the individual assets within each depreciable component. The larger gains and losses recognized on retirement of assets under ASL reflect the reduced accuracy inherent in the ASL depreciation calculation. ASL assumes that there will be an equal proportion of assets retiring before and after the average service life and that gains and losses will offset over time. While this is true in theory, it is not what happens in practice as assets are not replaced at the same cost as the original asset due to inflation and changes in technology, etc. With a continuously growing asset base, in any given year the value of the asset retiring prior to the average life is likely to exceed the value of the assets retiring after the average life (because they are older and cost less). Consequently, losses on assets retiring prior to the average service life of the pool are likely to exceed the gains on assets retiring after the average service life.

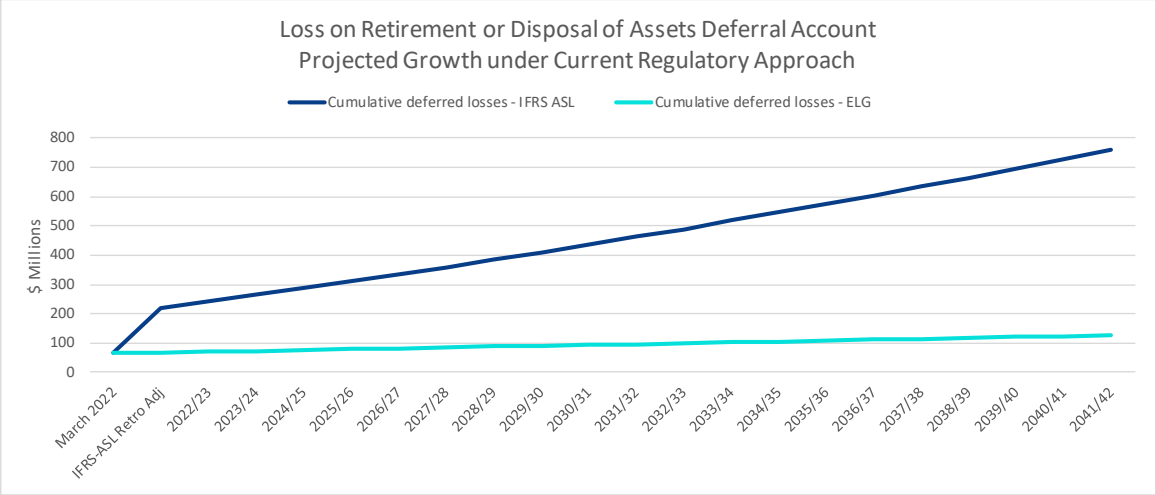
Since the calculation of the gains and losses is dependent upon the depreciation methodology (ELG or ASL) used, we recommend that they be accounted for consistently with the

accounting applied to their respective depreciation expense methodology. That is, asset retirement gains and losses under the ELG method need to be accounted for consistently with how the ELG depreciation expense is accounted for. The same applies to gains and losses under the ASL method.

Under either ASL or ELG, net losses on retirement reflect the extent to which the depreciation system did not recover the cost of the assets during their useful life. The customers who benefitted from use of the retired assets are todays and prior customers. Deferral of the losses pushes the shortfall onto future customers who will not benefit from use of the retired assets, and who are also covering the higher cost of replacement assets. Under ASL, the generational inequity resulting from the deferral of losses is compounded due to the significantly higher annual losses recognized (as compared to ELG). Although the magnitude of losses under IFRS-compliant ASL is lower than under CGAAP ASL due to increased accuracy in the underlying depreciation calculations, IFRS-ASL losses are still significantly higher than ELG losses.

Figure 7 compares the projected growth in the Loss on retirement or disposal of assets for IFRS-Compliant ASL versus ELG if the current regulatory approach to defer losses without amortization is continued.

Figure 7 Projected Growth in Loss of Retirement or Disposal of Assets Deferral Account



1.4.6 IFRS-compliant ASL Depreciation Expense Including Gains and Losses is Similar to ELG

Manitoba Hydro's completed a comprehensive review which indicates that there is no material difference in total depreciation expense (including gains and losses) between ELG and IFRS-compliant ASL.

As requested by the PUB, Manitoba Hydro has provided a comparison of the impact on Manitoba Hydro's long-term financial forecast scenario of total depreciation expense and net movement based on an IFRS-compliant ASL methodology (without net salvage) versus total depreciation expense and net movement based on an ELG methodology (without net salvage) applying both methodologies to all planned major capital additions in the forecast (Appendix 9.10).

Figure 8 and Figure 9 below show the total depreciation expense (including gains and losses) for IFRS-Compliant ASL and ELG, and demonstrate that there is no significant difference in total depreciation expense between the ELG and IFRS-compliant ASL methods for all years in the long-term forecast.

Figure 8 Total Depreciation & Amortization Expense – IFRS-Compliant ASL versus ELG

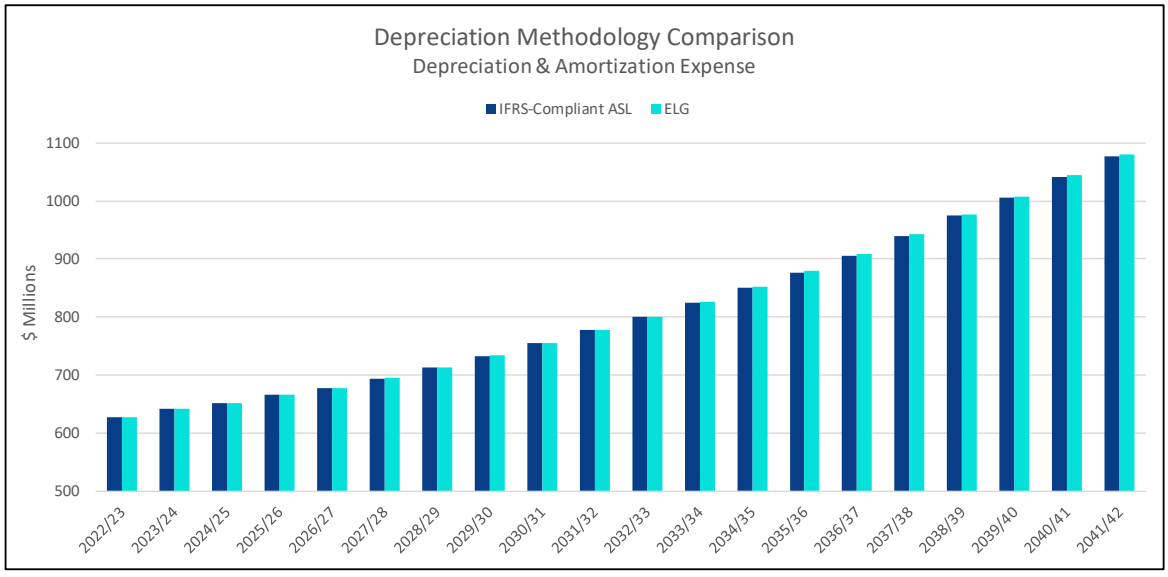


Figure 9 Difference in Total Depreciation & Amortization Expense – IFRS-Compliant ASL versus ELG

Depreciation Methodology Comparison Depreciation and Amortization Expense *in $ Millions*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
IFRS-Compliant ASL	$ 628	$ 642	$ 652	$ 666	$ 677	$ 694	$ 713	$ 733	$ 755	$ 778
ELG	628	642	652	667	677	695	714	734	755	778
Difference - IFRS-ASL vs ELG	$ -	$ -	$ -	$ (1)	$ -	$ (1)	$ (1)	$ (1)	$ -	$ -
Percentage Difference - IFRS-ASL vs ELG	0.0%	0.0%	0.0%	-0.2%	0.0%	-0.1%	-0.1%	-0.1%	0.0%	0.0%

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
IFRS-Compliant ASL	$ 800	$ 825	$ 851	$ 877	$ 905	$ 940	$ 975	$ 1,005	$ 1,041	$ 1,077
ELG	801	826	852	879	908	942	977	1,008	1,044	1,080
Difference - IFRS-ASL vs ELG	$ (1)	$ (1)	$ (1)	$ (2)	$ (3)	$ (2)	$ (2)	$ (3)	$ (3)	$ (3)
Percentage Difference - IFRS-ASL vs ELG	-0.1%	-0.1%	-0.1%	-0.2%	-0.3%	-0.2%	-0.2%	-0.3%	-0.3%	-0.3%

The annual difference in total depreciation expense between ELG and IFRS-compliant ASL (i.e. with additional components) is immaterial. For further details on the impact to the long-term forecast scenario please refer to Appendix 9.12.

The following sections describe the IFRS-Compliant ASL Study and address new information determined from the study.

1.4.7 IFRS-Compliant ASL Study

Manitoba Hydro has received an IFRS-compliant ASL depreciation study completed by an independent third-party consultant, Alliance Consulting Group (Alliance) which identifies the sub-componentization requirements for compliance with IFRS and provides the depreciation expense under IFRS ASL for Manitoba Hydro's assets as at March 31, 2019. This study was requested by the PUB to assist with its review and determination of the appropriate depreciation methodology to use for rate setting purposes. Manitoba Hydro intentionally engaged an expert who had no previous experience with Manitoba Hydro to ensure an independent study was performed. The IFRS-Compliant ASL Depreciation Study is included in this in Application (Appendix 9.11).

1.4.8 IFRS-Compliant ASL Asset Componentization

As requested from the PUB, Manitoba Hydro has provided information on the incremental componentization required for an IFRS-compliant ASL method. The IFRS-compliant ASL study as compiled by Alliance determined that Manitoba Hydro would require 410 additional asset components to comply with the degree of granularity required for determining total depreciation expense (including gains and losses) under IFRS-compliant ASL. This more than

doubles the depreciable components from 371 to 781. Figure 10 provides a comparison of number of depreciable components by asset category under ELG versus IFRS-compliant ASL.

Figure 10 Number of Depreciable Components – IFRS-Compliant ASL vs ELG

Number of Depreciable Components IFRS-Compliant ASL vs ELG	ELG	IFRS-Compliant ASL	Increase
Hydraulic Generation *	218	531	313
Thermal Generation	21	30	9
Diesel Generation	5	10	5
Transmission Lines	7	9	2
Substations	20	40	20
Distribution Lines	18	21	3
Distribution Meters	4	4	-
Communication	10	23	13
Motor Vehicles	7	7	-
Buildings	5	7	2
General Equipment	4	6	2
Easements	1	1	-
Computer Software & Development	5	9	4
Manitoba Hydro	325	698	373
Wuskwatim Power Limited Partnership	22	40	18
Keeyask Hydropower Limited Partnership	24	43	19
Total - Electric Operations	**371**	**781**	**410**

* Hydraulic Generation - maximum of 14 existing vs 42 IFRS-Compliant ASL components per GS. Not all components are in use for each GS.

The IFRS-compliant ASL method of depreciation results in similar total depreciation expense to the ELG method due to the additional 410 asset components required to apply the ASL method under IFRS. Adding the 410 components effectively replicates the ELG approach of calculating depreciation at a more granular asset level for assets with similar lives. Notably, the nature of the ELG method calculation is administratively more efficient as it does not require the establishment of 410 new asset components to reach a similar depreciation result.

1.4.9 Effort Required to Adopt IFRS-Compliant-ASL Method for Rate Setting Purposes

Given that the annual total depreciation expense (including gains and losses) is similar between the IFRS-compliant ASL and ELG methods of depreciation, it is reasonable to assume that Manitoba Hydro's external auditors would accept the application of an IFRS-compliant ASL method for financial reporting purposes.

A transition to an IFRS-compliant ASL method for regulatory purposes, however, would also necessitate application of this change for financial reporting purposes, as the different level of componentization would make it impracticable to maintain separate asset accounting records for financial reporting and regulatory reporting purposes. A change to an IFRS-Compliant ASL depreciation method would be considered a change in accounting policy under the accounting standards requiring retrospective restatement of financial results effective April 1, 2014 (the original IFRS transition date) to the IFRS ASL implementation date (e.g. April 1, 2023). This accounting treatment has been discussed with Manitoba Hydro's external auditors.

The extensive work and resources required to retrospectively restate Manitoba Hydro's financial statements would be an extremely time consuming and costly project that would yield little benefit to Manitoba Hydro's customers given that the IFRS ELG method produces a similar total depreciation expense.

Specifically, Manitoba Hydro would be required to perform the following to implement an IFRS-compliant ASL methodology:

- Engage a depreciation consultant to determine IFRS ASL rates and accumulated depreciation distribution to IFRS-compliant ASL subcomponents as at March 31, 2014.
- Recalculate depreciation and asset retirement gains and losses for the 2014/15 through 2018/19 fiscal years based on the IFRS-compliant ASL rates as at March 31, 2014. This retrospective restatement would result in a significant increase, estimated at approximately $99 million in regulatory deferral balances with an offset to accumulated depreciation.
- Engage a depreciation consultant to recalculate IFRS ASL rates as at March 31, 2019 reflecting the updated accumulated depreciation balances by subcomponent resulting from retrospective restatement of the depreciation and asset retirement gains and losses for 2014/15 through 2018/19.Sub-componentize all asset transactions (e.g. additions, retirements, reclassifications) for fiscal years 2019/20 through 2022/23 to convert existing assets to new subcomponents as at March 31, 2023. Effectively, all existing asset sub-group balances would need to be re-determined based on the new asset components. Given the significant volume of plant asset transactions that $30 billion of assets can generate each year, this task alone could take years to accomplish.

- Recalculate depreciation and asset retirement gains and losses for the 2019/20 through to 2022/23 fiscal years based on updated IFRS-compliant ASL rates as at March 31, 2019.
- Develop and implement changes to all plant asset related IT systems including SAP, C55, RUCES, CSI, and RMS to incorporate the new subcomponents. Notably, with the corporation transitioning to SAP S/4HANA and implementing the IT aspects of Strategy 2040 initiatives, the resources available to implement these changes will be significantly limited. The use of external resources may be available but are typically more expensive. Given the significant amount of system changes likely to be required and scarcity of IT resources, it is unlikely that the system changes could be completed prior to the effective implementation date. Convert all active and future capital project estimates from the existing asset component level to the new subcomponents as at March 31, 2023.
- Provide company-wide employee training on new subcomponents, focusing on the engineers and finance staff that plan, estimate and budget capital projects.
- Develop and maintain temporary processes such as accruals and offline spreadsheet accounting to bridge between existing components and new subcomponents from the effective implementation date until system modifications and and data conversion has been completed.

In addition to the significant time (i.e. several years) and costs associated with implementing an IFRS-complaint ASL approach to depreciation, the additional componentization would also result in a significant increase in ongoing administrative efforts and costs for all staff involved in planning and accounting for capital projects. For example, there would be an increase in month end processing with more asset components to account for and an increase in the amount of detail required for project estimating and recording of actual costs due to the additional sub-componentization (410 more components).

Manitoba Hydro has not calculated the additional costs of implementing and maintaining an IFRS-compliant ASL depreciation methodology, however, based on a review of the tasks required, the costs would be material relative to the benefit to customers. In summary, the IFRS ELG method produces similar total depreciation expense (including gains and losses), is already established at Manitoba Hydro and its use for rate setting purposes, and would not require retrospective restatement of Manitoba Hydro's financial statements.

1.4.10 Background on Manitoba Hydro's Depreciation Methodology and PUB Directives.

Upon transition to IFRS in 2014/15, Manitoba Hydro accepted the advice of its IFRS consultants (KPMG and Gannett Fleming) that it would need to change its depreciation methodology in order to comply with IFRS financial reporting requirements which requires a more accurate depreciation calculation.

Manitoba Hydro transitioned to an ELG method of depreciation as recommended by its consultant (Gannett Fleming). This change in methodology has been validated in past audits of Manitoba Hydro's financial statements where unqualified audit opinions have been received while using ELG to calculate depreciation and gains and losses on retirement or disposal of assets for compliance with IFRS.

The ELG method complies with the requirements of IFRS because it subdivides a group of assets into sub-groups with equal service lives and calculates depreciation for each sub-group separately, complying with the strict componentization requirements of IFRS. In contrast, the ASL approach calculates depreciation based on the overall average service life of the assets in each group, which reduces the accuracy of depreciation expense for groups containing assets with wide variations in service lives. For the ASL method to comply with the componentization requirements of IFRS, Manitoba Hydro would need to further sub-componentize its current asset groups to reduce the variation in service lives within each group so that the average service life of the sub-group is representative of the majority of its assets.

The PUB Order 43/13 Directives 8 & 9 read as follows:

> *8. That Manitoba Hydro file updated depreciation rates and schedules based on an International Financial Reporting Standards-compliant Average Service Life methodology with the next General Rate Application.*

> *9. That Manitoba Hydro file with the Board, with the next General Rate Application, a chart showing a comparison of the impact on its Integrated Financial Forecast (i.e. 'Budget') of asset depreciation pursuant to the Average Service Life methodology (without net salvage) and the Equal Life Group methodology (without net salvage), applying both methodologies to all planned major capital additions*

The Board stipulated in PUB Order 59/18 (page 146 & 147) with respect to outstanding Order 43/13 Directives 8 & 9: Manitoba Hydro was to continue to use the CGAAP ASL method for rate setting purposes until it received more information. Specifically, the Board stated that it would require Manitoba Hydro to provide a comparison of the depreciation impact on the financial forecast of an IFRS-compliant ASL methodology compared to the ELG methodology. In addition, the Board stated that it would require additional information to support the view that an IFRS-compliant ASL methodology would require increased componentization consistent with the ELG methodology.

> *"In Order 73/15, the Board ordered that the Average Service Life methodology be maintained until the directives from Order 43/13 are complied with and the Board is provided with an IFRS-compliant Average Service Life depreciation study."*

> *"As was the case at the time of Order 73/15, the Board does not currently have sufficient information upon which to make a decision, especially given that a change in methodology leads to significant long-term consumer rate consequences."*

> *"Once Manitoba Hydro has completed and provided to the Board its IFRS-compliant Average Service Life depreciation study, the Board will make a final disposition."*

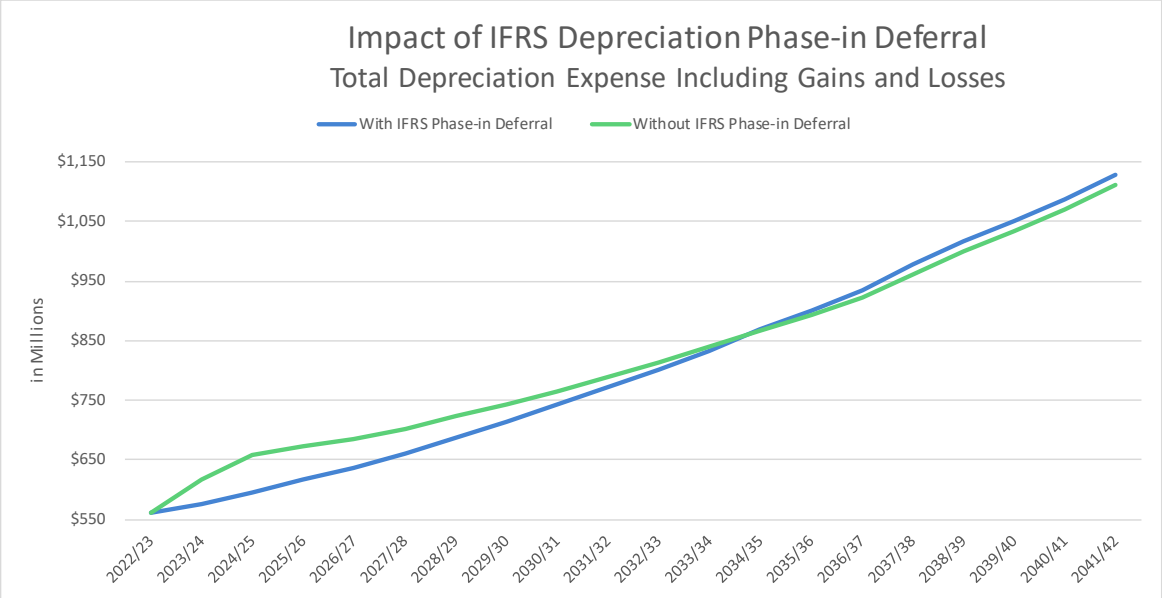
1.4.11 New Phase-In Deferral Mitigates Impact of Adopting ELG for Rate Setting Purposes

Manitoba Hydro recognizes that its recommendation to adopt ELG for rate setting purposes will result in a significant increase in total depreciation expense (including gains and losses) with a corresponding increase to revenue requirement and customer rates. As a means to mitigate these impacts, Manitoba Hydro recommends phasing-in the impact of using the IFRS ELG method of depreciation for rate setting purposes by establishing a new regulatory deferral account to reduce the impact to revenue requirement.

Figure 11 provides a comparison of total depreciation expense after net movement in regulatory deferral accounts with and without the recommended IFRS Phase-In deferral,

illustrating the smoothing effect achieved by use of the IFRS depreciation phase-in deferral to mitigates the impact to customers.

Figure 11 Impact of IFRS Depreciation Phase-In Deferral

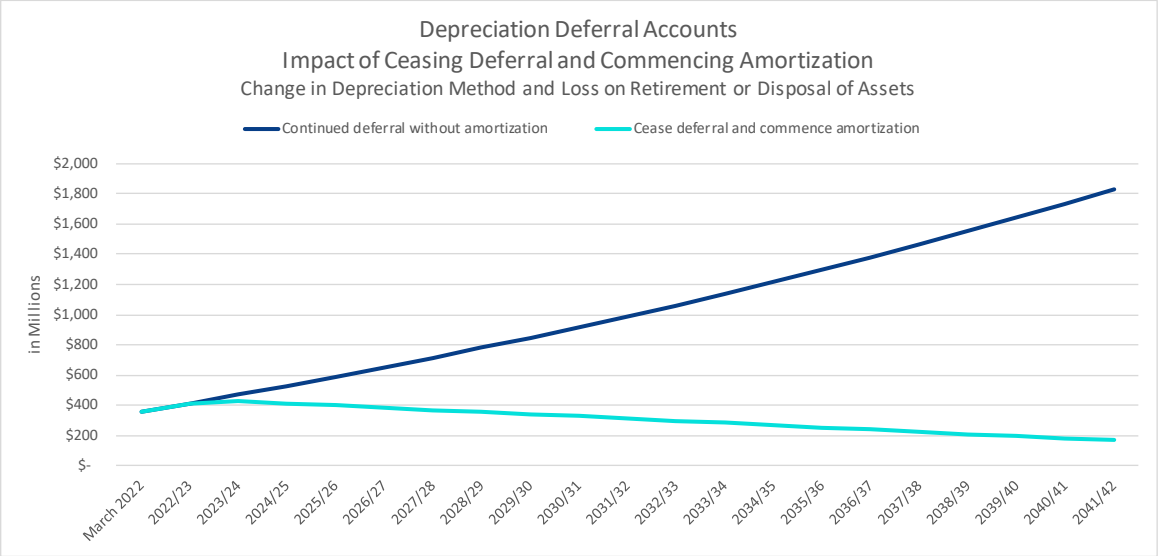


1.4.12 Cessation and Amortization of Existing Depreciation Methodology Deferrals

Manitoba Hydro recognizes that a change to the IFRS ELG method for determining depreciation for rate setting purposes will have implications on the existing two deferral accounts for the Change in depreciation method and the Loss on retirement of disposal or assets which were established to retain the use of CGAAP ASL for rate setting purposes as directed by the PUB. The existing balances in these accounts will need to be addressed as part of the transition from CGAAP ASL to IFRS ELG as the balances represent differences in costs that have yet to be recognized into income for rate setting purposes and as such, cannot remain unamortized in perpetuity.

Figure 12 provides a comparison of forecast cumulative balances for the two existing depreciation deferral accounts (Change in depreciation method and the Loss on retirement or disposal of assets), with and without the recommended cessation and amortization.

Figure 12 Depreciation Deferrals - Impact of Ceasing Deferral and Commencing Amortization



1.4.13 Manitoba Hydro is Seeking the following Approvals Related to Depreciation Methodology

Manitoba Hydro recommends moving towards collecting full depreciation and its associated gains and losses in revenue requirement used for rate setting purposes and is therefore recommending the use of ELG for rate setting purposes.

As part of this recommendation, Manitoba Hydro is seeking PUB approval to establish a regulatory deferral account to initially defer the annual increase in depreciation and recognition of gains and losses on disposition of assets from transitioning to the IFRS ELG method for rate setting purposes.

In addition to the above, Manitoba Hydro recognizes that a change to the IFRS ELG method for rate setting purposes will have implications for the existing deferral accounts established to allow for the use of CGAAP ASL for rate setting. The existing balances in these accounts will need to be addressed as part of the transition to IFRS ELG as the balances represent differences in costs that have yet to be recognized into income.

Manitoba Hydro is requesting the following PUB approvals for depreciation methodology for rate setting purposes:

- Approve IFRS for determining depreciation for rate setting purposes.

- Approve ELG as the method for determining depreciation.
- Approve a new regulatory deferral account (IFRS depreciation phase-in) and amortization period to smooth the transition of depreciation expense and recognition of gains and losses on disposition of assets from CGAAP to IFRS.
- Approve the cessation of additions to the Change in depreciation method deferral, approve an amortization period for this account and begin amortizing the balance into income on a straight-line basis.
- Approve the cessation of additions to the Loss on retirement or disposal of assets deferral, approve an amortization period for this account and begin amortizing the balance into income on a straight-line basis.

1.4.14 Accept IFRS for Rate Setting Purposes

Manitoba Hydro requests that the PUB approve the use of an IFRS-compliant depreciation methodology to determine depreciation for rate setting purposes. Not only are IFRS based depreciation calculations more accurate, but they also promote intergenerational equity. Using the same depreciation method for both financial reporting and rate setting purposes will reduce the reliance on deferral accounts, avoiding the perpetual growth in these accounts. This approach will also save the current administrative costs of maintaining two sets of accounting records. Reducing the extent of regulatory deferrals will make the financial statements less complex and more transparent, which will make it easier for the Board to assess the impacts on rates due to the of future asset additions and changes in asset service lives.

1.4.15 Accept ELG as the Depreciation Method

If the PUB approves IFRS for determining depreciation for rate setting purposes, Manitoba Hydro requests that the PUB approve the use of the ELG method. Given that the total annual depreciation expense (including gains and losses) determined using ELG is similar to total depreciation determined using an IFRS-compliant ASL method, it would be considerably more efficient and less costly to customers to maintain the current ELG method for both financial reporting and rate setting purposes.

1.4.16 Approve a New IFRS Depreciation Phase-In Deferral

Manitoba Hydro recognizes there will be a significant impact to net income annually of approximately $70 million due to the change to the IFRS ELG method of depreciation for rate setting purposes in combination with the cessation and amortization to net income of the two existing deferral accounts. To mitigate these impacts on customer rates, Manitoba Hydro recommends phasing-in the impact of using the IFRS ELG method of depreciation for rate setting purposes by establishing a new regulatory deferral account to reduce the impact to revenue requirement.

Manitoba Hydro is seeking PUB approval to establish a regulatory deferral account to defer the annual increase in total depreciation expense (including gains and losses) from transitioning to the IFRS ELG method for rate setting purposes. Manitoba Hydro is proposing to defer the increase in total depreciation expense (i.e. compared to the CGAAP ASL method) commencing September 1, 2023 with annual reductions in the deferral amount over a 15-year period. The 15-year phase in period allows for a gradual transition to using IFRS ELG for rate setting purposes at a pace that minimizes the impact on customer rates. Manitoba Hydro is recommending the deferred costs be amortized into income on a straight-line basis over a period of 30-years effective October 1, 2023.

The 30-year amortization period represents the weighted average probable remaining life of the accounts that contribute to the difference in depreciation between CGAAP and IFRS and will ensure intergenerational equity and minimal rate impacts to customers by recognizing the associated expenses over the period expected to benefit from the costs previously deferred.

Figure 13 shows the impact to net income of phasing in the transition to IFRS Depreciation

Figure 13 Impact to Net Income – Establishment and Amortization of IFRS Depreciation Phase-in Deferral

Impact to Net Income Establishment and Amortization of IFRS Depreciation Phase-in Deferral *(in Millions)*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Net Income without IFRS depreciation phase-in deferral	$ 751	$ 428	$ 232	$ 94	$ 117	$ 55	$ 57	$ 82	$ 82	$ 153
Additions to IFRS depreciation phase-in deferral	-	$ 41	$ 65	$ 60	$ 55	$ 50	$ 45	$ 40	$ 35	$ 30
Amortization of Keeyask in-service deferral	-	-	(2)	(5)	(6)	(8)	(10)	(11)	(12)	(14)
Net Income including IFRS depreciation phase-in deferral	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**

	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
Net Income without IFRS depreciation phase-in deferral	$ 179	$ 214	$ 278	$ 256	$ 293	$ 326	$ 375	$ 456	$ 524	$ 586
Additions to IFRS depreciation phase-in deferral	25	20	15	10	5	-	-	-	-	-
Amortization of Keeyask in-service deferral	(14)	(15)	(16)	(16)	(16)	(17)	(17)	(17)	(17)	(17)
Net Income including IFRS depreciation phase-in deferral	**$ 190**	**$ 219**	**$ 277**	**$ 250**	**$ 282**	**$ 309**	**$ 358**	**$ 439**	**$ 507**	**$ 569**

1.4.17 Establish an Amortization Period for the Change in Depreciation Method Deferral and Cease Additions to the Account

As part of Manitoba Hydro's request for the PUB to approve the use of IFRS ELG for rate setting purposes, Manitoba Hydro is seeking PUB approval to cease additions to the Change in depreciation method deferral account and to begin amortizing the balance in the account into income on a straight-line basis over a period of 30 years for Manitoba Hydro, 42 years for WPLP and 62 years for KHLP effective September 1, 2023. The amortization periods are based on the weighted average probable remaining life of the asset components contributing to the deferral balance and will ensure fairness to customers by recognizing the associated depreciation expenses over the remaining periods expected to benefit from the use of the assets.

Figure 14 shows the impact of the recommended amortization periods on forecasted net income.

Figure 14 Impact to Net Income – Amortization of Change in Depreciation Method Deferral

Impact to Net Income Amortization of Change in Depreciation Method Deferral *(in Millions)*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Net Income before amortization of Change in depreciation method deferral	$ 751	$ 476	$ 307	$ 161	$ 178	$ 109	$ 104	$ 123	$ 117	$ 181
Amortization of Change in depreciation method deferral	-	(7)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Net Income including amortization of Change in depreciation method deferral	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**

1.4.18 Establish an Amortization Period for the Loss of Retirement or Disposal of Assets Deferral and Cease Additions to the Account

Similarly, Manitoba Hydro is seeking PUB approval to cease additions to the Loss on retirement or disposal of assets deferral account, and to begin amortizing the balance in the account into income on a straight-line basis over a period of 26 years for Manitoba Hydro, 27 years for WPLP and 58 years for KHLP effective September 1, 2023. The amortization periods are based on the weighted average probable remaining life of the asset components contributing to the deferral balance and will ensure fairness to customers by recognizing the associated gains and losses over the remaining asset service lives, similar in effect to the historical CGAAP recovery mechanism.

Figure 15 shows the impact of the recommended amortization periods on forecasted net income.

Figure 15 Impact to Net Income – Amortization of Loss on Retirement or Disposal of Assets Deferral

Impact to Net Income Amortization of Loss on Retirement or Disposal of Assets Deferral *(in Millions)*	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
Net Income before amortization of Loss of retirement or disposal of assets deferral	$ 751	$ 471	$ 298	$ 152	$ 169	$ 100	$ 95	$ 114	$ 108	$ 172
Amortization of Loss of retirement or disposal of assets deferral	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Net Income including amortization of Loss of retirement or disposal of assets deferral	**$ 751**	**$ 469**	**$ 295**	**$ 149**	**$ 166**	**$ 97**	**$ 92**	**$ 111**	**$ 105**	**$ 169**

1.4.19 Amortization Period for Major Capital Deferral

Manitoba Hydro is seeking PUB approval to begin amortizing the cumulative deferred balance of the Major Capital deferral into income on a straight-line basis over a period of 2 years effective April 1, 2025.

Manitoba Hydro is proposing to commence the amortization of this deferral April 1, 2025 to support stable and predictable rates for customers and mitigate the impact of increased expenses (finance expense, depreciation expense, O&A expenses and capital taxes) largely driven by capital projects and the debt required to fund these projects as outlined in Tab 3. The recommended amortization of the deferral will match the deferred revenue collected for capital projects with the associated costs, aiding in the preservation of stable and predictable rate increases for customers.

REFERENCE:

Appendix 4.3 Figure 6

PREAMBLE TO IR (IF ANY):

Figure 6 shows an amount of $355 million in 2022/23 for Opening Balance – Depreciation Method Deferrals for two deferral accounts related to implementation of IFRS. Figure 6 also shows a 2022/2023 additions amount of $58 million, and a closing balance of $413 million.

QUESTION:

With respect to the balances identified in the preamble, please:

a) Confirm that Manitoba Hydro is seeking disposition of $413 million, effective September 1, 2023.
b) Provide a continuity schedule for each of the two deferral accounts since their inception. These schedules should show opening balance, annual additions, interest, other adjustments and closing balance for each year up to September 1, 2023.
c) Please confirm that the balances provided in response to (b) reconcile to the audited Annual Financial Statements. If no, please provide a schedule that reconciles the differences.

RESPONSE:

a) Manitoba Hydro confirms that it is seeking disposition of $413 million effective September 1, 2023. In Appendix 4.3, Section 1.4.17, Manitoba Hydro has proposed amortization periods for the Change in depreciation method deferral accounts and in Section 1.4.18 has proposed amortization periods for the Loss on retirement or disposal of assets deferral accounts in order to recover these costs from customers.

b) Figure 1 below provides a continuity of the of the two depreciation method deferral accounts since their inception. These schedules should show opening balance, annual

additions, and closing balance from 2014/15 up to September 1, 2023. These accounts do not have any interest or other adjustments. to these accounts.

Figure 1 Depreciation Method Regulatory Deferral Account Continuities

Depreciation Method Regulatory Deferral Accounts (in Millions)	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	Sept. 1, 2023 Preliminary Budget
Change in Depreciation Method	$ -	$ 29	$ 60	$ 91	$ 123	$ 159	$ 199	$ 240	$ 288	$ 343
Loss on Retirement or Disposal of Assets	-	6	9	10	19	29	36	72	67	70
Opening Balance - depreciation method deferrals	**-**	**35**	**69**	**101**	**142**	**188**	**235**	**312**	**355**	**413**
Change in Depreciation Method	29	31	31	32	36	40	41	48	55	23
Loss on Retirement or Disposal of Assets	6	3	1	9	10	7	36	(5)	3	1
Additions - depreciation method deferrals	**35**	**34**	**32**	**41**	**46**	**47**	**77**	**43**	**58**	**24**
Change in Depreciation Method	29	60	91	123	159	199	240	288	343	366
Loss on Retirement or Disposal of Assets	6	9	10	19	29	36	72	67	70	71
Closing Balance - depreciation method deferrals	**$ 35**	**$ 69**	**$ 101**	**$ 142**	**$ 188**	**$ 235**	**$ 312**	**$ 355**	**$ 413**	**$ 437**

c) Manitoba Hydro confirms that the balance as at March 31, 2022 for the Change in depreciation method and Loss on retirement or disposal of assets accounts reconcile to the audited financial statements.

REFERENCE:

Reference: Tab 4 Appendix 4.3 Page 31 Figure 14

PREAMBLE TO IR (IF ANY):

QUESTION:

Provide alternative scenarios and re-file Figure 6 and Figure 14 with the continuation of the ASL-ELG deferral account based on CGAAP ASL, with the balance to be amortized over a 30-year period and a 70-year period.

RESPONSE:

Please note that given the additions and amortization flowing through net movement are non-cash transactions, revisions to the treatment of regulatory deferrals do not substantially impact net debt or the calculation of the cash surplus/deficit.

30-Year Amortization Period

Please see Figure 3 below for the expected growth in depreciation method regulatory deferral accounts and Figure 4 below for the net income impact based on an alternative scenario reflecting indefinite continuation of the *Change in depreciation method* (CGAAP ASL versus ELG difference), with the balance to be amortized over a 30-year period.

Over the 20-year forecast period, this alternative scenario produces **an approximately $680 million increase** to retained earnings with an associated 1% decrease in the debt ratio by 2041/42 when compared to the Amended Financial Forecast Scenario. Notable drivers of this change are as follows:

- The continuation of the *Change in depreciation method* regulatory deferral **adds $1.337 billion** to net income as well as the regulatory deferral debit balance.
- Applying a 30-year amortization period to the existing balance as well as the additional deferrals **lowers net income by $385 million** over the 20-year period.

- Revisions to the *IFRS depreciation phase-in* deferral and amortization amounts yield a **net decrease to net income of $243 million**. The full *IFRS depreciation phase-in* as outlined in Appendix 4.3 (Amended) is no longer warranted if the *Change in depreciation method* deferrals continue indefinitely.
- The overall increase to net income increases retained earnings and in turn increases capital tax and finance expense yielding a **decrease to net income of $29 million.**

As shown in Figure 1, indefinite deferral of the *Change in deprecation method* would yield an approximately $700 million dollar increase in the regulatory deferral debit balance in comparison to the Amended Financial Forecast Scenario despite amortization of these deferrals over 30 years and a slight offset from associated *IFRS depreciation phase-in* reductions.

Figure 1 Regulatory Debit Balance

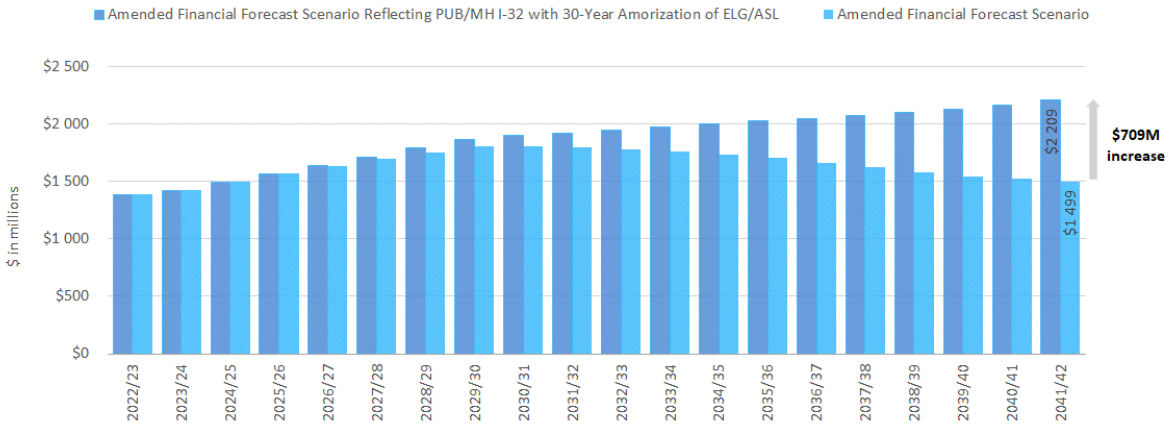


Figure 2 below summarizes the accounting treatment in the Amended Financial Forecast Scenario in contrast to the assumptions in this alternative scenario.

Figure 2 Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-32 30-Year Alternative Scenario
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	30 years
Deferred Until	August 31, 2023	Indefinite*
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	None*
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The deferral and amortization portions of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component have been removed as the *Change in depreciation method* deferrals have been continued indefinitely for the purpose of this alternative scenario.

Figure 3 Expected Growth in Depreciation Method Account Balances (30-Year Alternative Scenario)

Depreciation Method Regulatory Deferral Accounts with Continuing Deferral and 30-Year Amortization for the Change in Depreciation Method Account										
(in Millions)	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Change in Depreciation Method	$ 288	$ 343	$ 390	$ 432	$ 474	$ 514	$ 555	$ 595	$ 635	$ 675
Loss on Retirement or Disposal of Assets	67	70	70	67	64	61	59	56	53	50
IFRS Depreciation Phase-in	-	-	3	9	14	18	21	24	27	29
Opening balance - depreciation method deferrals	355	413	463	508	551	593	635	675	715	754
Change in Depreciation Method	55	55	56	57	59	61	62	64	66	68
Loss on Retirement or Disposal of Assets	3	1	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	-	4	6	5	5	4	4	3	3	3
Additions - depreciation method deferrals	58	59	62	63	64	65	66	68	69	71
Change in Depreciation Method	-	(7)	(14)	(16)	(18)	(20)	(22)	(24)	(26)	(29)
Loss on Retirement or Disposal of Assets	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	-	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)
Amortization - depreciation method deferrals	-	(9)	(17)	(19)	(21)	(23)	(26)	(28)	(30)	(32)
Change in Depreciation Method	343	390	432	474	514	555	595	635	675	714
Loss on Retirement or Disposal of Assets	70	70	67	64	61	59	56	53	50	48
IFRS Depreciation Phase-in	-	3	9	14	18	21	24	27	29	30
Closing balance - depreciation method deferrals	**$ 413**	**$ 463**	**$ 508**	**$ 551**	**$ 593**	**$ 635**	**$ 675**	**$ 715**	**$ 754**	**$ 792**

	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Change in Depreciation Method	$ 714	$ 754	$ 793	$ 833	$ 872	$ 911	$ 949	$ 988	$ 1,026	$ 1,064
Loss on Retirement or Disposal of Assets	48	45	42	39	37	34	31	28	26	23
IFRS Depreciation Phase-in	30	31	31	31	31	30	28	27	26	24
Opening balance - depreciation method deferrals	792	830	867	903	939	974	1,009	1,043	1,077	1,111
Change in Depreciation Method	70	73	75	77	80	82	85	87	90	93
Loss on Retirement or Disposal of Assets	-	-	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	2	2	1	1	0	-	-	-	-	-
Additions - depreciation method deferrals	73	74	76	78	80	82	85	87	90	93
Change in Depreciation Method	(31)	(33)	(36)	(38)	(41)	(44)	(46)	(49)	(52)	(55)
Loss on Retirement or Disposal of Assets	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Amortization - depreciation method deferrals	(35)	(37)	(40)	(42)	(45)	(48)	(51)	(53)	(56)	(59)
Change in Depreciation Method	754	793	833	872	911	949	988	1,026	1,064	1,101
Loss on Retirement or Disposal of Assets	45	42	39	37	34	31	28	26	23	20
IFRS Depreciation Phase-in	31	31	31	31	30	28	27	26	24	23
Closing balance - depreciation method deferrals	**$ 830**	**$ 867**	**$ 903**	**$ 939**	**$ 974**	**$ 1,009**	**$ 1,043**	**$ 1,077**	**$ 1,111**	**$ 1,144**

Figure 4 Impact to Net Income – 30-Year Amortization of Change in Depreciation Method Deferral

Impact to Net Income **30-Year Amortization of Change in Depreciation Method Deferral** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income before amortization of Change in depreciation method deferral	$ 751	$ 471	$ 305	$ 168	$ 192	$ 131	$ 134	$ 160	$ 161	$ 234
Amortization of Change in depreciation method deferral	-	(7)	(14)	(16)	(18)	(20)	(22)	(24)	(26)	(29)
Net Income including amortization of Change in depreciation method deferral	**$ 751**	**$ 464**	**$ 291**	**$ 152**	**$ 174**	**$ 111**	**$ 112**	**$ 136**	**$ 135**	**$ 205**

	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Net Income before amortization of Change in depreciation method deferral	$ 261	$ 297	$ 363	$ 343	$ 382	$ 415	$ 466	$ 550	$ 620	$ 683
Amortization of Change in depreciation method deferral	(31)	(33)	(36)	(38)	(41)	(44)	(46)	(49)	(52)	(55)
Net Income including amortization of Change in depreciation method deferral	**$ 230**	**$ 264**	**$ 327**	**$ 305**	**$ 341**	**$ 371**	**$ 420**	**$ 501**	**$ 568**	**$ 628**

70-Year Amortization Period

Please see Figure 7 below for the expected growth in depreciation method regulatory deferral accounts and Figure 8 below for the net income impact based on an alternative scenario reflecting indefinite continuation of the *Change in depreciation method* (CGAAP ASL versus ELG difference), with the balance to be amortized over a 70-year period.

Over the 20-year forecast period, this alternative scenario produces **an approximately $1.0 billion increase** to retained earnings with an associated 2% decrease in the debt ratio by 2041/42 when compared to the Amended Financial Forecast Scenario. Notable drivers of this change are as follows:

- The continuation of the *Change in depreciation method* regulatory deferral **adds $1.337 billion** to net income as well as the regulatory deferral debit balance.
- Applying a 70-year amortization period to the existing balance as well as the additional deferrals **lowers net income by only $40 million** over the 20-year period due to the lengthy recovery period.
- Revisions to the *IFRS depreciation phase-in* deferral and amortization amounts yield a **net decrease to net income of $243 million**. The full *IFRS depreciation phase-in* as outlined in Appendix 4.3 (Amended) is no longer warranted if the *Change in depreciation method* deferrals continue indefinitely.

- The overall increase to net income increases retained earnings and in turn increases capital tax and finance expense yielding a **decrease to net income of $45 million.**

As shown in Figure 5 below, indefinite deferral of the *Change in deprecation method* would yield an approximately $1.1 billion dollar increase in the regulatory deferral debit balance in comparison to the Amended Financial Forecast Scenario despite a slight offset from associated *IFRS depreciation phase-in* reductions. Applying a lengthy amortization period of 70 years does little to recover this balance within the 20-year period. As indicated in section 1.4.4 of Appendix 4.3 (Amended), as the regulatory deferral debit balance grows to billions of dollars, the principle of intergenerational equity may become compromised.

Figure 5: Regulatory Debit Balance

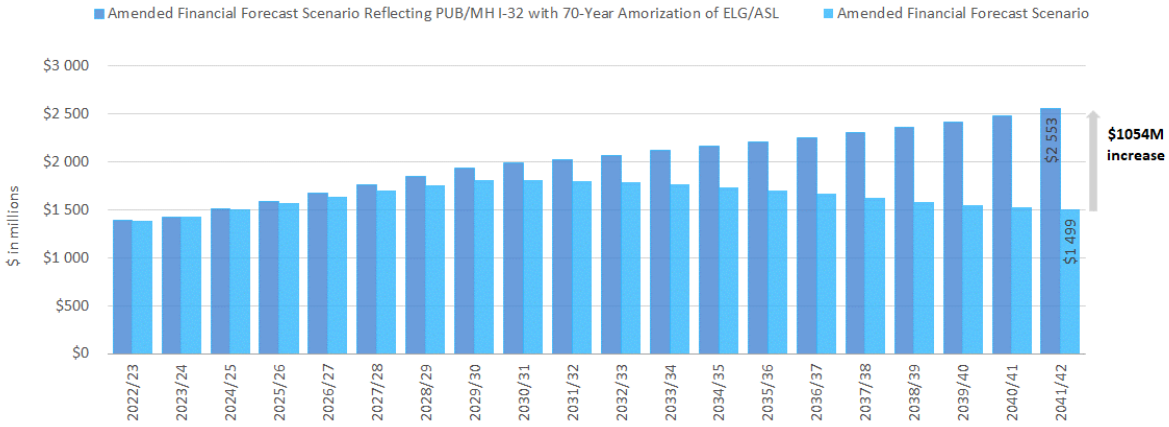


Figure 6 below summarizes the accounting treatment in the Amended Financial Forecast Scenario in contrast to the assumptions in this alternative scenario.

Figure 6 Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-32 70-Year Alternative Scenario
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	70 years
Deferred Until	August 31, 2023	Indefinite*
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	None*
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The deferral and amortization portions of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component have been removed as the *Change in depreciation method* deferrals have been continued indefinitely for the purpose of this alternative scenario.

Figure 7: Expected Growth in Depreciation Method Account Balances (70-Year Alternative Scenario)

Depreciation Method Regulatory Deferral Accounts with Continuing Deferral and 70-Year Amortization for the Change in Depreciation Method Account										
(in Millions)	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Change in Depreciation Method	$ 288	$ 343	$ 395	$ 445	$ 495	$ 546	$ 598	$ 651	$ 705	$ 760
Loss on Retirement or Disposal of Assets	67	70	70	67	64	61	59	56	53	50
IFRS Depreciation Phase-in	-	-	3	9	14	18	21	24	27	29
Opening balance - depreciation method deferrals	355	413	468	520	573	625	678	731	785	839
Change in Depreciation Method	55	55	56	57	59	61	62	64	66	68
Loss on Retirement or Disposal of Assets	3	1	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	-	4	6	5	5	4	4	3	3	3
Additions - depreciation method deferrals	58	59	62	63	64	65	66	68	69	71
Change in Depreciation Method	-	(3)	(6)	(7)	(8)	(9)	(9)	(10)	(11)	(12)
Loss on Retirement or Disposal of Assets	-	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	-	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(1)	(1)
Amortization - depreciation method deferrals	-	(5)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Change in Depreciation Method	343	395	445	495	546	598	651	705	760	815
Loss on Retirement or Disposal of Assets	70	70	67	64	61	59	56	53	50	48
IFRS Depreciation Phase-in	-	3	9	14	18	21	24	27	29	30
Closing balance - depreciation method deferrals	**$ 413**	**$ 468**	**$ 520**	**$ 573**	**$ 625**	**$ 678**	**$ 731**	**$ 785**	**$ 839**	**$ 893**

	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Change in Depreciation Method	$ 815	$ 873	$ 931	$ 991	$ 1,052	$ 1,114	$ 1,178	$ 1,243	$ 1,309	$ 1,376
Loss on Retirement or Disposal of Assets	48	45	42	39	37	34	31	28	26	23
IFRS Depreciation Phase-in	30	31	31	31	31	30	28	27	26	24
Opening balance - depreciation method deferrals	893	949	1,005	1,062	1,119	1,178	1,237	1,298	1,360	1,423
Change in Depreciation Method	70	73	75	77	80	82	85	87	90	93
Loss on Retirement or Disposal of Assets	-	-	-	-	-	-	-	-	-	-
IFRS Depreciation Phase-in	2	2	1	1	0	-	-	-	-	-
Additions - depreciation method deferrals	73	74	76	78	80	82	85	87	90	93
Change in Depreciation Method	(13)	(14)	(15)	(16)	(18)	(19)	(20)	(21)	(22)	(24)
Loss on Retirement or Disposal of Assets	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
IFRS Depreciation Phase-in	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Amortization - depreciation method deferrals	(17)	(18)	(19)	(21)	(22)	(23)	(24)	(25)	(27)	(28)
Change in Depreciation Method	873	931	991	1,052	1,114	1,178	1,243	1,309	1,376	1,445
Loss on Retirement or Disposal of Assets	45	42	39	37	34	31	28	26	23	20
IFRS Depreciation Phase-in	31	31	31	31	30	28	27	26	24	23
Closing balance - depreciation method deferrals	**$ 949**	**$ 1,005**	**$ 1,062**	**$ 1,119**	**$ 1,178**	**$ 1,237**	**$ 1,298**	**$ 1,360**	**$ 1,423**	**$ 1,488**

Figure 8: Impact to Net Income – 70-Year Amortization of Change in Depreciation Method Deferral

Impact to Net Income **70-Year Amortization of Change in Depreciation Method Deferral** ***(in Millions)***	**2022/23**	**2023/24**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**2029/30**	**2030/31**	**2031/32**
Net Income before amortization of Change in depreciation method deferral	$ 751	$ 471	$ 305	$ 168	$ 192	$ 131	$ 133	$ 159	$ 161	$ 232
Amortization of Change in depreciation method deferral	-	(3)	(6)	(7)	(8)	(9)	(9)	(10)	(11)	(12)
Net Income including amortization of Change in depreciation method deferral	**$ 751**	**$ 468**	**$ 299**	**$ 161**	**$ 184**	**$ 122**	**$ 124**	**$ 149**	**$ 150**	**$ 220**
	2032/33	**2033/34**	**2034/35**	**2035/36**	**2036/37**	**2037/38**	**2038/39**	**2039/40**	**2040/41**	**2041/42**
Net Income before amortization of Change in depreciation method deferral	$ 260	$ 297	$ 361	$ 341	$ 381	$ 413	$ 465	$ 548	$ 618	$ 681
Amortization of Change in depreciation method deferral	(13)	(14)	(15)	(16)	(18)	(19)	(20)	(21)	(22)	(24)
Net Income including amortization of Change in depreciation method deferral	**$ 247**	**$ 283**	**$ 346**	**$ 325**	**$ 363**	**$ 394**	**$ 445**	**$ 527**	**$ 596**	**$ 657**

REFERENCE:

Tab 4, Appendix 4.1 (Amended), pages 2 (Figure 1) and 6 (Figure 5)

PREAMBLE TO IR (IF ANY):

The subject references provide a 20-year Electric Operations Operating Statement.

QUESTION:

a) Please confirm that the Depreciation and Amortization expense is calculated based on the IFRS compliant ELG procedure.

RESPONSE:

a) It is confirmed that the depreciation and amortization expense included in the long-term Financial Forecast Scenario was calculated based on the IFRS complaint equal life group procedure.

The long-term Financial Forecast Scenario uses the ELG depreciation rates provided by Concentric Advisors in the 2019 Depreciation Study (MFR 95) except for Selkirk Generating Station, Right-of-Use and WPLP & KHLP Intangible Transmission assets for which depreciation rates have been revised as described in the response to PUB/MH I-136.

REFERENCE:

Tab 4, Appendix 4.1 (Amended), pages 2 (Figure 1) and 6 (Figure 5)

PREAMBLE TO IR (IF ANY):

The subject references provide a 20-year Electric Operations Operating Statement.

QUESTION:

b) Using the 20-year Operations Financial Forecast in the Amended Application as a baseline, please update Figures 1 and 5 separately for each of the following scenarios, with a detailed explanation of any other changes made:
   i. Using CGAAP ASL,
   ii. Using IFRS Compliant ASL,
   iii. Using a 40-year disposition period for Manitoba Hydro (e.g. keeping WPLP and KHLP and 42 years and 62 years respectively),
   iv. Using a 20-year disposition period for Manitoba Hydro (e.g. keeping WPLP and KHLP and 42 years and 62 years respectively),
   v. Using a 50-year disposition period for the Loss on Retirement of Disposal of Assets Account,
   vi. Using a 10-year amortization period for the Major Capital deferral account, and
   vii. Implementing ELG for regulatory accounting effective September 1, 2023, (i.e. do not phase in over a 15 year period as currently proposed).

c) Using the 20-year Operations Financial Forecast in the Original Application as a baseline, please update Figures 1 and 5 separately for each of the following scenarios, with a detailed explanation of any other changes made:
   i. Use 2022/23 and 2023/24 “surplus” income due to high water levels to reduce the balance in the Depreciation Method deferral accounts effective September 1, 2023.
   ii. Use the announced reduction in the Provincial Debt Guarantee Fee and Water Rental Fees, to reduce the balance in the Depreciation Method deferral account (approximately $190 million) to reduce the balance in the Depreciation Method deferral account, effective September 1, 2023.

RESPONSE:

b) Please note that given the additions and amortization flowing through net movement are non-cash transactions, revisions to the treatment of regulatory deferrals do not substantially impact net debt or the calculation of the cash surplus/deficit.

Alternative scenarios using the 20-year Amended Financial Forecast Scenario as a baseline have been provided as follows:

i. This scenario has been provided as requested. However, should the PUB direct Manitoba Hydro to implement this scenario, management's assessment of recoverability as required under IFRS 14 would indicate that there is no evidence that the balance would be recovered in future years. As such, Manitoba Hydro would be required to write off the balance in the account to be in compliance with IFRS. Please refer to Appendix 4.3 section 1.4.4, and the response to PUB/MH I-115 a) for further discussion regarding Manitoba Hydro's concerns about the continued growth in these regulatory deferral accounts without an established recovery mechanism.

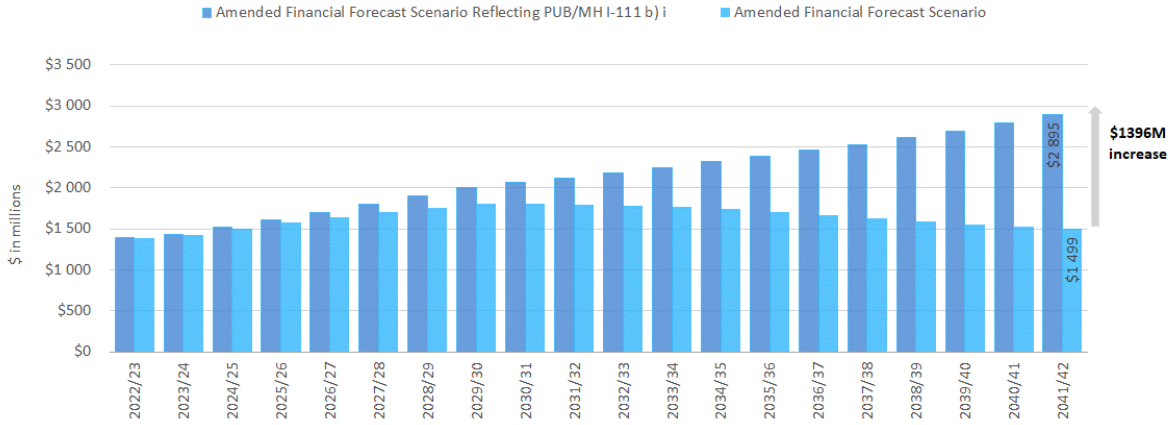
A projected operating statement for an alternative scenario assuming use of CGAAP ASL is included in Figures 3 and 4 below. Manitoba Hydro is not able to determine depreciation based on CGAAP ASL without regulatory deferral accounts as such an approach would not be IFRS compliant. As such, Manitoba Hydro has interpreted this question as a request to reflect continuation of the current depreciation approach for regulatory purposes which adjusts the income statement through net movement to modify depreciation expense to prior CGAAP ASL levels and eliminate the *Loss on the retirement or disposal of assets*, with offset in regulatory deferral accounts.

Over the 20-year forecast period, this alternative scenario produces an approximately **$1.3 billion increase to retained earnings** with an associated 3% decrease in the debt ratio by 2041/42 when compared to the Amended Financial Forecast Scenario. Notable drivers of this change are as follows:

- The continuation of the *Change in depreciation method* and *Loss on retirement or disposal of assets* regulatory deferrals **adds $1.337 billion and $56 million to net income**, respectively.
- Removing amortization for both deferrals **increases net income by $269 million** over the 20-year period.
- Removal of the *IFRS depreciation phase-in* deferral and amortization amounts yield a **net decrease to net income of $266 million**. The *IFRS depreciation phase-in* as outlined in Appendix 4.3 (Amended) is no longer warranted if *Change in depreciation method* and *Loss on retirement or disposal of assets* deferrals continue indefinitely.
- The overall increase to net income increases retained earnings and in turn increases capital tax and finance expense yielding a **decrease to net income of $60 million.**

As shown in Figure 1 below, this alternative scenario would produce a nearly $1.4 billion increase in the regulatory debit balance.

Figure 1: Regulatory Debit Balance



The assumptions applied for this alternative scenario are shown in Figure 2 below:

Figure 2: Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-111b-i
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	None
Deferred Until	August 31, 2023	Indefinite*
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	None
Deferred Until	August 31, 2023	Indefinite*
IFRS Depreciation Phase-In		
Amortization Period	30 years	None*
Components	Change in depreciation method	None*
	Loss on retirement or disposal of assets	None*
Timeframe	15 years	None*

*The *IFRS depreciation phase-in* deferral has been removed as the *Change in depreciation method* and *Loss on retirement or disposition of assets* deferrals have been continued indefinitely for the purpose of this alternative scenario.

Figure 3: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) i) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - i)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	924
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	166	167	169	171	172	174	177
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 828	2 878	2 923	2 973	2 972
Net Income before Net Movement in Reg. Deferral	565	368	224	38	59	41	41	68	108	189
Net Movement in Regulatory Deferral	190	108	88	138	141	99	102	103	65	57
Net Income	755	476	312	175	201	139	143	171	173	246
Net Income Attributable to:										
Manitoba Hydro	**751**	**471**	**306**	**169**	**193**	**132**	**136**	**162**	**164**	**237**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	476	312	175	201	139	143	171	173	246
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 4: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) i) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - i)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	930	915	905	902	894	877	864	856
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	179	184	185	187	191	194	197	199	202	205
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 030	3 104	3 170	3 243	3 331	3 459	3 535	3 570	3 654	3 727
Net Income before Net Movement in Reg. Deferral	213	248	312	291	328	357	407	489	540	603
Net Movement in Regulatory Deferral	62	65	67	68	72	75	79	82	101	103
Net Income	275	313	379	360	400	432	486	571	642	705
Net Income Attributable to:										
Manitoba Hydro	**265**	**301**	**367**	**347**	**387**	**419**	**470**	**554**	**624**	**686**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	275	313	379	360	400	432	486	571	642	705
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

ii. Manitoba Hydro has provided two scenarios reflecting the use of IFRS-compliant ASL with retrospective and prospective accounting treatment. As demonstrated in the scenarios provided below, the difference in financial impact between prospective and retrospective application is minimal. As such, the determination of accounting treatment does not impact Manitoba Hydro's position regarding recommendations for the PUB to accept IFRS ELG for regulatory reporting purposes.

As discussed in the response to PUB/MH I-115 b), Manitoba Hydro's retrospective treatment of the implementation of IFRS-compliant ASL depreciation in the scenario presented in Appendix 9.12 was based on interpretation of accounting standards at the time of IFRS implementation. Based on the questions raised by intervenors in the current Application, Manitoba Hydro has reviewed amendments to existing accounting standards and agrees that there appears to be justification for treating a change from ELG to IFRS-complaint ASL deprecation as a change in accounting estimate. Should the PUB direct Manitoba Hydro to implement an IFRS-compliant ASL depreciation procedure for regulatory reporting purposes, further analysis of the accounting standards would be required to finalize the accounting treatment.

A projected operating statement for an alternative scenario assuming use of IFRS-compliant ASL with retrospective implementation is included in Figures 5 and 6 below.

A projected operating statement for an alternative scenario assuming use of IFRS-compliant ASL with prospective implementation is included in Figures 7 and 8 below.

Both the retrospective and prospective treatment of the implementation of IFRS-compliant ASL yield a decrease in net income of less than $100 million over the 20-year forecast period driven by a combination of higher depreciation and amortization expense and in the case of the retrospective treatment, lower net movement. In both scenarios, there is no change in the debt ratio.

For these alternative scenario, depreciation and losses on retirement have been calculated based on the IFRS-Compliant ASL depreciation rates and parameters provided by Alliance Consulting Group (Appendix 9.11). Please refer to Appendix 9.12 Section 1.2.1 for further details regarding details of the assumptions and estimates

required to apply IFRS-compliant ASL to Manitoba Hydro's existing asset base and planned capital additions. Assumptions regarding regulatory deferral accounts are unchanged from Amended Financial Forecast Scenario.

Figure 5: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) ii) Retrospective – 2022/23 - 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - ii) - IFRS ASL - Retrospective
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	905	915	927	935	946	949	923
Depreciation and Amortization	628	642	652	665	676	694	713	733	755	777
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 631	2 693	2 704	2 756	2 783	2 834	2 883	2 927	2 976	2 973
Net Income before Net Movement in Reg. Deferral	556	358	215	30	53	35	36	64	105	187
Net Movement in Regulatory Deferral	199	107	72	114	109	58	53	45	(1)	(17)
Net Income	755	466	287	143	162	93	89	109	105	170
Net Income Attributable to:										
Manitoba Hydro	**750**	**461**	**281**	**137**	**154**	**86**	**82**	**101**	**96**	**161**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	466	287	143	162	93	89	109	105	170
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 6: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) ii) Retrospective – 2032/33 - 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - ii) - IFRS ASL - Retrospective
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	54	56	58	61	62
	3 242	3 352	3 482	3 534	3 659	3 814	3 940	4 056	4 192	4 326
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	927	928	929	914	904	901	892	875	862	852
Depreciation and Amortization	799	825	851	878	906	940	975	1 005	1 041	1 077
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	181	181	184	186	189	191	193	195	197
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 029	3 102	3 165	3 237	3 324	3 447	3 517	3 551	3 631	3 697
Net Income before Net Movement in Reg. Deferral	213	250	317	297	336	367	422	505	561	629
Net Movement in Regulatory Deferral	(20)	(25)	(31)	(37)	(42)	(46)	(45)	(44)	(27)	(28)
Net Income	194	225	285	259	294	321	378	462	534	600
Net Income Attributable to:										
Manitoba Hydro	**183**	**213**	**273**	**247**	**281**	**308**	**362**	**444**	**515**	**581**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	194	225	285	259	294	321	378	462	534	600
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

Figure 7: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) ii) Prospective – 2022/23 - 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - ii) - IFRS ASL - Prospective
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	905	915	927	935	946	949	923
Depreciation and Amortization	628	642	652	665	676	694	713	733	755	777
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 631	2 693	2 704	2 756	2 783	2 834	2 883	2 927	2 976	2 974
Net Income before Net Movement in Reg. Deferral	555	358	215	30	53	35	36	64	105	187
Net Movement in Regulatory Deferral	199	110	76	117	113	62	57	49	3	(13)
Net Income	755	468	291	147	166	97	93	113	108	174
Net Income Attributable to:										
Manitoba Hydro	**750**	**463**	**285**	**141**	**158**	**90**	**86**	**105**	**100**	**165**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	468	291	147	166	97	93	113	108	174
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 8: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) ii) Prospective – 2032/33 - 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - ii) - IFRS ASL - Prospective
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	54	56	58	61	62
	3 242	3 352	3 482	3 534	3 659	3 814	3 940	4 056	4 192	4 326
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	927	928	929	914	904	901	892	875	863	854
Depreciation and Amortization	799	825	851	878	906	940	975	1 005	1 041	1 077
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	181	182	184	186	189	191	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 029	3 102	3 166	3 238	3 324	3 448	3 518	3 551	3 631	3 699
Net Income before Net Movement in Reg. Deferral	213	250	316	296	335	367	422	505	560	627
Net Movement in Regulatory Deferral	(16)	(21)	(27)	(33)	(38)	(42)	(41)	(40)	(23)	(24)
Net Income	198	229	289	263	298	324	381	465	537	603
Net Income Attributable to:										
Manitoba Hydro	**187**	**217**	**277**	**251**	**285**	**312**	**366**	**448**	**519**	**583**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	198	229	289	263	298	324	381	465	537	603
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

iii. A projected operating statement for an alternative scenario using a 40-year disposition period for the Manitoba Hydro portion of the *Change in depreciation method* deferral account, retaining WPLP and KHLP amortization periods of 42 years and 62 years respectively, is included in Figures 10 and 11 below.

Over the 20-year forecast period, this alternative scenario produces **a minor increase to retained earnings of $38 million** primarily due to an extension of the Manitoba Hydro portion of the *Change in depreciation method* amortization period from 30 to 40 years. This extension in amortization period produces no change in the debt ratio in 2041/42 when compared to the Amended Financial Forecast Scenario.

This alternative scenario incorporates the following assumptions as outlined in Figure 9 below. Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral.

Figure 9: Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-111b-iii
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	40 years – MH* 42 years – WPLP 62 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	Change in depreciation method – *updated to reflect the longer amortization period for the Manitoba Hydro portion account**
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The amortization portion of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component has been recalculated for the purpose of this alternative scenario.

Figure 10: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) iii) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - iii)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 828	2 877	2 922	2 972	2 970
Net Income before Net Movement in Reg. Deferral	565	368	224	38	59	41	42	69	109	191
Net Movement in Regulatory Deferral	190	106	77	119	114	63	58	52	6	(10)
Net Income	755	474	301	156	174	105	100	120	115	180
Net Income Attributable to:										
Manitoba Hydro	**751**	**469**	**295**	**150**	**166**	**98**	**93**	**112**	**107**	**171**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	474	301	156	174	105	100	120	115	180
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 11: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) iii) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - iii)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	181	182	184	187	190	192	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 027	3 101	3 167	3 239	3 327	3 453	3 528	3 563	3 647	3 717
Net Income before Net Movement in Reg. Deferral	215	251	315	295	332	363	414	495	548	612
Net Movement in Regulatory Deferral	(13)	(18)	(24)	(30)	(34)	(38)	(37)	(36)	(19)	(20)
Net Income	202	233	292	265	298	325	377	460	529	592
Net Income Attributable to:										
Manitoba Hydro	**192**	**221**	**279**	**253**	**285**	**313**	**362**	**443**	**511**	**573**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	202	233	292	265	298	325	377	460	529	592
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

iv. A projected operating statement for an alternative scenario using a 20-year disposition period for the Manitoba Hydro portion of the *Change in depreciation method* deferral account, retaining WPLP and KHLP amortization periods of 42 years and 62 years respectively, is included in Figures 13 and 14 below.

Over the 20-year forecast period, this alternative scenario produces **a minor decrease to retained earnings of $77 million** primarily due to a shortening of the Manitoba Hydro portion of the *Change in depreciation method* amortization period from 30 to 20 years. This extension in amortization period produces no change in the debt ratio in 2041/42 when compared to the Amended Financial Forecast Scenario.

This alternative scenario incorporates the following assumptions as outlined in Figure 12 below.

Figure 12: Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-111b-iv
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	20 years – MH* 42 years – WPLP 62 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	Change in depreciation method *– updated to reflect the shorter amortization period for the Manitoba Hydro portion account**
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The amortization portion of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component has been recalculated for the purpose of this alternative scenario.

Figure 13: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) iv) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - iv)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 828	2 877	2 922	2 972	2 970
Net Income before Net Movement in Reg. Deferral	565	368	224	38	59	41	42	69	110	191
Net Movement in Regulatory Deferral	190	106	77	117	112	60	55	47	0	(17)
Net Income	755	475	301	155	172	102	97	116	110	174
Net Income Attributable to:										
Manitoba Hydro	**751**	**470**	**295**	**149**	**164**	**95**	**89**	**108**	**101**	**165**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	475	301	155	172	102	97	116	110	174
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 14: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) iv) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - iv)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	181	182	184	187	189	191	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 027	3 101	3 166	3 239	3 327	3 452	3 528	3 563	3 646	3 716
Net Income before Net Movement in Reg. Deferral	215	251	316	295	333	364	414	496	548	613
Net Movement in Regulatory Deferral	(20)	(26)	(32)	(39)	(44)	(49)	(47)	(46)	(29)	(31)
Net Income	195	225	284	256	289	315	367	450	519	582
Net Income Attributable to:										
Manitoba Hydro	**185**	**214**	**271**	**244**	**276**	**303**	**352**	**433**	**501**	**563**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	195	225	284	256	289	315	367	450	519	582
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

v. A projected operating statement for an alternative scenario using a 50-year disposition period for the *Loss on retirement or disposal of assets* deferral account, is included in Figures 16 and 17 below.

Over the 20-year forecast period, this alternative scenario produces **a minor increase to retained earnings of $20 million** primarily due to a revision of the *Loss on retirement or disposal of assets* amortization period to 50 years. This extension in amortization period for Manitoba Hydro and WPLP produces no change in the debt ratio in 2041/42 when compared to the Amended Financial Forecast Scenario.

This alternative scenario incorporates the following assumptions as outlined in Figure 15 below.

Figure 15: Scenario Assumptions

	Amended Financial Forecast Scenario	**PUB/MH I-111b-v**
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	30 years – MH 42 years – WPLP 62 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	50 years*
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	Change in depreciation method
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets – *updated to reflect the revised amortization period**
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The amortization portion of the *Loss on retirement or disposal of assets* (Deferred Gains/Losses) component has been recalculated for the purpose of this alternative scenario.

Figure 16: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) v) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - v)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 828	2 877	2 922	2 972	2 970
Net Income before Net Movement in Reg. Deferral	565	368	224	38	59	41	42	69	109	191
Net Movement in Regulatory Deferral	190	106	77	119	114	63	58	51	5	(11)
Net Income	755	475	302	156	174	104	100	120	114	179
Net Income Attributable to:										
Manitoba Hydro	**751**	**470**	**295**	**150**	**166**	**98**	**93**	**111**	**106**	**170**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	475	302	156	174	104	100	120	114	179
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 17: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) v) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - v)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	181	182	184	187	190	192	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 027	3 101	3 166	3 239	3 327	3 453	3 528	3 563	3 647	3 717
Net Income before Net Movement in Reg. Deferral	215	251	315	295	332	363	414	496	548	612
Net Movement in Regulatory Deferral	(14)	(19)	(25)	(31)	(36)	(40)	(39)	(38)	(21)	(22)
Net Income	201	231	290	264	297	323	375	458	527	590
Net Income Attributable to:										
Manitoba Hydro	**191**	**220**	**278**	**251**	**284**	**311**	**360**	**441**	**509**	**571**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	201	231	290	264	297	323	375	458	527	590
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

vi. A projected operating statement for an alternative scenario using a 10-year amortization period for the *Major capital deferral* account, is included in Figures 18 and 19 below.

Over the 20-year forecast period, this alternative scenario produces **a minor increase to retained earnings of $3 million** as the extension of the amortization period from 2 years to 10 years for the *Major capital deferral account* is a non-cash transaction that merely shifts the timing of amortization within the 20-year forecast period. The longer amortization period produces a slight decrease to retained earnings and in turn yields a slight decrease to capital tax and finance expense yielding the $3 million increase in cumulative net income to 2041/42.

Other than the amortization period for the *Major capital deferral* account, this alternative scenario retains the assumptions used in the Amended Financial Forecast Scenario.

Figure 18: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) vi) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - vi)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	927	936	946	949	923
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	168	170	171	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 776	2 827	2 877	2 922	2 971	2 970
Net Income before Net Movement in Reg. Deferral	565	368	224	38	60	42	42	69	110	191
Net Movement in Regulatory Deferral	190	106	77	79	75	72	67	60	14	(3)
Net Income	755	474	301	117	134	114	109	129	123	188
Net Income Attributable to:										
Manitoba Hydro	**751**	**469**	**295**	**110**	**127**	**107**	**102**	**121**	**115**	**179**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	474	301	117	134	114	109	129	123	188
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 19: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) vi) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - vi)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	928	929	929	915	904	900	893	876	863	853
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	181	182	184	187	189	191	194	196	198
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 027	3 101	3 166	3 239	3 327	3 452	3 528	3 563	3 647	3 717
Net Income before Net Movement in Reg. Deferral	215	251	316	295	333	363	414	496	548	613
Net Movement in Regulatory Deferral	(5)	(11)	(17)	(33)	(37)	(42)	(40)	(39)	(23)	(24)
Net Income	210	240	299	262	295	322	374	457	526	589
Net Income Attributable to:										
Manitoba Hydro	**199**	**229**	**286**	**250**	**282**	**309**	**358**	**439**	**508**	**570**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	210	240	299	262	295	322	374	457	526	589
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

vii. A projected operating statement for an alternative scenario reflecting implementation of ELG for regulatory reporting purposes effective September 1, 2023 without the proposed *IFRS depreciation phase-in* deferral, is included in Figures 20 and 21 below.

Over the 20-year forecast period, this alternative scenario produces a **$223 million decrease** to retained earnings when compared to the Amended Financial Forecast Scenario with an increase in the 2041/42 debt ratio from 66% to 67%. Removal of the *IFRS depreciation phase-in* yields a **net decrease to net income of $266 million** partially offset by an **increase in net income from combined lower capital tax and finance expense of $43 million**.

Other than removal of the *IFRS depreciation phase-in*, this alternative scenario retains the assumptions used in the Amended Financial Forecast Scenario.

Figure 20: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) vii) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - vii)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	926	936	946	949	922
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	161	163	165	165	167	169	170	171	173
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 683	2 695	2 747	2 776	2 826	2 876	2 921	2 970	2 966
Net Income before Net Movement in Reg. Deferral	565	368	225	39	60	42	43	71	111	195
Net Movement in Regulatory Deferral	190	66	14	63	65	21	22	21	(19)	(29)
Net Income	755	434	239	101	126	63	65	92	93	166
Net Income Attributable to:										
Manitoba Hydro	**751**	**429**	**233**	**95**	**118**	**56**	**58**	**84**	**84**	**156**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	434	239	101	126	63	65	92	93	166
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 21: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 b) vii) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 b) - vii)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	926	927	929	914	904	899	891	874	862	850
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	175	179	180	182	185	188	190	192	195	197
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 024	3 097	3 164	3 237	3 324	3 450	3 525	3 560	3 644	3 713
Net Income before Net Movement in Reg. Deferral	219	254	318	297	335	366	417	499	551	617
Net Movement in Regulatory Deferral	(26)	(25)	(26)	(26)	(26)	(25)	(24)	(23)	(6)	(7)
Net Income	193	229	292	271	309	341	393	476	545	609
Net Income Attributable to:										
Manitoba Hydro	**183**	**217**	**280**	**259**	**296**	**328**	**378**	**459**	**527**	**590**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	193	229	292	271	309	341	393	476	545	609
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

c) Alternative scenarios using the 20-year Amended Financial Forecast Scenario as a baseline have been provided as follows:

i. Figures 23 and 24 below provide a projected operating statement for an alternative scenario reflecting the use of $370 million of "surplus" income due to high water levels from 2022/23 to reduce the balance in the *Change in depreciation method* deferral accounts effective September 1, 2023. The 2023/24 Preliminary Budget reflects a return to average water flow conditions, therefore there is no "surplus" income due to high water in the forecast of net export revenue in that year.

As shown in Tab 4 of the Application, Figure 4.3, the 2022/23 budget versus forecast comparison indicates an increase to net income of $370 million due to well above average water supply conditions combined with higher export market prices. As this $370 million increase in net income exceeds the balance in the *Change in depreciation method* regulatory deferral accounts, Manitoba Hydro has interpreted this scenario as a request for write-off of the cumulative balance in the *Change in depreciation method* regulatory deferral account effective September 1, 2023. The $370 million forecast variance shown in Figure 4.3 was based on assumptions and information prepared in August 2022. Actual results to the end of fiscal year 2022/23 may vary from forecast.

Over the 20-year forecast period, this alternative scenario produces a **$142 million decrease** to retained earnings by 2041/42 when compared to the Amended Financial Forecast Scenario primarily due to the advancement of the disposal of the *Change in depreciation method* balance via a complete write off as opposed to amortization over time. The 2022/23 forecast net income of $751 million is unchanged. The $370 million write-off through net movement is assumed in 2023/24 reducing net income in that year from $469 million to $106 million.

This alternative scenario incorporates the following assumptions outlined in Figure 22 below:

Figure 22: Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-111c-i
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	None*
Deferred Until	August 31, 2023	August 31, 2023
Write Off	None	$366 million cumulative balance on September 1, 2023*
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	Change in depreciation method – *updated to reflect removal of the portion relating to amortization**
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The amortization portion of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component has been removed for the purpose of this alternative scenario.

Figure 23: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 c) i) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 c) - i)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	905	915	926	935	946	949	922
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	160	161	164	165	166	168	170	171	173
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 682	2 694	2 746	2 775	2 826	2 875	2 920	2 970	2 966
Net Income before Net Movement in Reg. Deferral	565	370	226	40	61	43	44	71	112	195
Net Movement in Regulatory Deferral	190	(259)	79	121	118	68	63	57	12	(3)
Net Income	755	111	305	161	179	111	107	128	124	191
Net Income Attributable to:										
Manitoba Hydro	**751**	**106**	**299**	**154**	**172**	**104**	**100**	**120**	**115**	**182**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	111	305	161	179	111	107	128	124	191
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 24: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 c) i) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 c) - i)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	926	927	929	914	903	899	891	874	862	850
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	175	180	181	183	185	188	190	193	195	197
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 024	3 098	3 164	3 237	3 325	3 450	3 525	3 561	3 644	3 713
Net Income before Net Movement in Reg. Deferral	219	254	318	297	335	366	417	498	550	616
Net Movement in Regulatory Deferral	(5)	(10)	(15)	(20)	(24)	(27)	(26)	(25)	(8)	(9)
Net Income	214	244	303	277	311	339	391	474	542	607
Net Income Attributable to:										
Manitoba Hydro	**203**	**233**	**291**	**265**	**298**	**326**	**375**	**456**	**524**	**588**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	214	244	303	277	311	339	391	474	542	607
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

ii. A projected operating statement for an alternative scenario reflecting use of the announced reduction in the Provincial Debt Guarantee Fee and Water Rental Fees, to reduce the balance in the *Change in depreciation method* deferral account by $190 million effective September 1, 2023 is included in Figures 26 and 27 below.

Over the 20-year forecast period, this alternative scenario produces a **$70 million decrease** to retained earnings by 2041/42 when compared to the Amended Financial Forecast Scenario primarily due to the advancement of the disposal of the *Change in depreciation method* balance via a partial write off as opposed to amortization over time. The 2022/23 forecast net income of $751 million is unchanged. The $190 million write-off through net movement is assumed in 2023/24 reducing net income in that year from $469 million to $280 million.

This alternative scenario incorporates the following assumptions as outlined in Figure 25 below:

Figure 25: Scenario Assumptions

	Amended Financial Forecast Scenario	PUB/MH I-111c-ii
Change in Depreciation Method		
Amortization Period	30 years – MH 42 years – WPLP 62 years – KHLP	30 years – MH 42 years – WPLP 62 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
Write Off	None	$190 million on September 1, 2023*
Loss on Retirement or Disposal of Assets		
Amortization Period	26 years – MH 27 years – WPLP 58 years – KHLP	26 years – MH 27 years – WPLP 58 years – KHLP
Deferred Until	August 31, 2023	August 31, 2023
IFRS Depreciation Phase-In		
Amortization Period	30 years	30 years
Components	Change in depreciation method	Change in depreciation method – *updated to reflect the lower annual amortization resulting from the partial write-off at September 1, 2023**
	Loss on retirement or disposal of assets	Loss on retirement or disposal of assets
Timeframe	15 years	15 years

*Please see the response to PUB/MH I-117 for a breakdown of the amounts included in the *IFRS depreciation phase-in* deferral. The amortization portion of the *Change in depreciation method* (Previous CGAAP ASL vs. ELG) component has been recalculated for the purpose of this alternative scenario.

Figure 26: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 c) ii) – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 c) - ii)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	24	74	113	153	195	238	284	331	382
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 052	2 920	2 786	2 836	2 869	2 919	2 991	3 081	3 161
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	915	926	935	946	949	922
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	161	162	164	165	167	169	171	172	174
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 683	2 694	2 747	2 776	2 827	2 876	2 921	2 971	2 967
Net Income before Net Movement in Reg. Deferral	565	369	225	39	60	42	43	70	111	194
Net Movement in Regulatory Deferral	190	(84)	78	119	116	65	60	54	8	(8)
Net Income	755	286	303	158	176	107	103	124	119	186
Net Income Attributable to:										
Manitoba Hydro	**751**	**280**	**296**	**152**	**169**	**100**	**96**	**115**	**110**	**177**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	286	303	158	176	107	103	124	119	186
Percent Increase	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	0.00%	2.00%	4.04%	6.12%	8.24%	10.41%	12.62%	14.87%	17.17%	19.51%

Figure 27: Electric Operations Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH I-111 c) ii) – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH I-111 c) - ii)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	437	495	558	627	702	781	866	955	1 050	1 148
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 242	3 352	3 482	3 534	3 660	3 816	3 942	4 059	4 195	4 329
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	926	927	929	914	904	899	891	875	862	851
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	176	180	181	183	186	189	191	193	195	197
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 025	3 099	3 165	3 238	3 326	3 451	3 526	3 561	3 645	3 714
Net Income before Net Movement in Reg. Deferral	218	253	317	296	334	365	416	497	549	615
Net Movement in Regulatory Deferral	(10)	(15)	(20)	(26)	(30)	(34)	(33)	(32)	(15)	(16)
Net Income	208	238	296	270	304	331	383	466	534	599
Net Income Attributable to:										
Manitoba Hydro	**198**	**227**	**284**	**258**	**291**	**318**	**368**	**449**	**516**	**580**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	208	238	296	270	304	331	383	466	534	599
Percent Increase	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cumulative Percent Increase	21.90%	24.34%	26.82%	29.36%	31.95%	34.59%	37.28%	40.02%	42.82%	45.68%

REFERENCE:

Appendix 4.3 Regulatory Deferrals, page 17

PREAMBLE TO IR (IF ANY):

Page 27 quotes the finding from Order 59/18 Directive 17, which in part says "…Manitoba Hydro shall not amortize the difference between Average Service Life and Equal Life Group for rate setting."

QUESTION:

Please provide Manitoba Hydro's justification for requesting amortization in this application and explain why Manitoba Hydro considers amortization to be appropriate.

RESPONSE:

Manitoba Hydro's application reflects the proposal for the PUB to accept IFRS ELG depreciation for rate setting purposes including cessation of the change in depreciation method and the loss on retirement or disposal of assets accounts. Cessation of the deferrals will cause the cumulative balance in the accounts to be orphaned requiring establishment of recovery mechanisms. A recovery mechanism ensures compliance with IFRS 14 which requires evidence that deferred amounts will be recovered or refunded in future rates. As indicated in PUB/MH I-118 c), based on the Electricity Canada survey conducted by Manitoba Hydro, all other Canadian utilities who responded have recovery mechanisms established for their regulatory deferral accounts.

If a recovery mechanism is not established for this deferral, the balance will continue to grow to $1.8 billion by the end of the 20-year forecast period. Manitoba Hydro has proposed use of amortization periods which is a straightforward approach for recovery of these costs. From an external audit perspective, PUB approval of an amortization period for this deferral account will demonstrate that the deferral has future value to the utility in terms of the ability to generate cash inflows from rates and as such, the account qualifies for recognition as an asset. As discussed in PUB/MH I-115 a), when an Order is received

from the PUB addressing these deferral accounts, management will assess recoverability for audit purposes as required by IFRS 14.

As requested by the Board in Order 59/18 (pages 147-147) and in Directives 8 & 9 of Order 43/13, Manitoba Hydro has provided additional information including the requested IFRS-compliant ASL depreciation study in this Application. Manitoba Hydro believes it has provided sufficient information for the PUB to opine on depreciation for rate setting purposes including a recovery mechanism for the cumulative balance in the change in depreciation method and the loss on retirement or disposal of asset deferral accounts.

Manitoba Hydro recognizes that its recommendation to adopt ELG for rate setting purposes will result in a significant increase in total depreciation expense (including gains and losses) with a corresponding increase to revenue requirement and customer rates. As a means to mitigate these impacts, Manitoba Hydro has proposed to phase-in the change to IFRS depreciation for rate setting purposes to smooth the rate impact to customers. Figure 1 in PUB/MH I-113 a) demonstrates that amortizing this regulatory deferral over the weighted average probable remaining life of the accounts that contribute to the difference in depreciation between CGAAP and IFRS would smooth the impacts to net income and adheres to the principle of intergenerational equity.

REFERENCE:

PUB/MH I-32a-b

PREAMBLE TO IR (IF ANY):

QUESTION:

a) Please file 20-year financial scenarios (operating statement, balance sheet, cash flow statement, and summary of key financial measures), including the equal annual rate increases to meet the established legislated debt ratio target based on a 30-year amortization period for the ASL-ELG deferral account.

b) Please file 20-year financial scenarios (operating statement, balance sheet, cash flow statement, and summary of key financial measures), including the equal annual rate increases to meet the established legislated debt ratio target based on a 70-year amortization period for the ASL-ELG deferral account.

RESPONSE:

a) Please see Figures 1 and 2 for projected operating statements, Figures 3 and 4 for projected balance sheets, Figures 5 and 6 for projected indirect cash flow statements, Figures 7 and 8 for projected direct cash flow statements, and Figure 9 for a schedule of key financial measures based on the alternative scenario provided in PUB/MH I-32 reflecting indefinite continuation of the *Change in depreciation method* (CGAAP ASL versus ELG difference), with the balance to be amortized over a **30-year period**.

Figure 1: Electric Operations Projected Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	22	70	107	145	184	225	268	313	361
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 051	2 916	2 780	2 828	2 858	2 906	2 976	3 063	3 139
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	916	929	938	950	954	928
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	169	170	172	173	175
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 830	2 879	2 926	2 976	2 974
Net Income before Net Movement in Reg. Deferral	565	367	220	32	51	28	27	49	86	165
Net Movement in Regulatory Deferral	190	100	73	120	122	76	77	75	35	24
Net Income	755	467	293	152	173	104	104	125	121	189
Net Income Attributable to:										
Manitoba Hydro	**751**	**462**	**287**	**146**	**165**	**98**	**97**	**116**	**113**	**180**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	467	293	152	173	104	104	125	121	189
Percent Increase	0.00%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%
Cumulative Percent Increase	0.00%	1.90%	3.83%	5.80%	7.80%	9.85%	11.93%	14.05%	16.22%	18.42%

Figure 2: Electric Operations Projected Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	412	467	526	591	661	735	814	898	986	1 078
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 218	3 324	3 450	3 498	3 619	3 770	3 891	4 002	4 131	4 259
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	933	935	938	925	917	915	911	896	888	883
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	177	182	183	186	189	192	194	197	199	201
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 033	3 108	3 176	3 251	3 342	3 470	3 549	3 586	3 675	3 750
Net Income before Net Movement in Reg. Deferral	185	215	274	247	277	300	341	415	456	509
Net Movement in Regulatory Deferral	27	26	25	24	24	24	25	26	42	40
Net Income	211	241	299	271	301	324	366	441	498	550
Net Income Attributable to:										
Manitoba Hydro	**201**	**230**	**286**	**259**	**288**	**311**	**351**	**424**	**480**	**531**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	211	241	299	271	301	324	366	441	498	550
Percent Increase	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%
Cumulative Percent Increase	20.67%	22.96%	25.29%	27.66%	30.08%	32.55%	35.06%	37.63%	40.24%	42.89%

Figure 3: Electric Operations Projected Balance Sheet – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28 814	29 416	30 089	30 739	31 593	32 345	33 112	33 929	34 789	35 693
Accumulated Depreciation	(3 525)	(4 083)	(4 638)	(5 186)	(5 773)	(6 409)	(7 044)	(7 706)	(8 390)	(9 096)
Net Plant in Service	25 288	25 333	25 451	25 553	25 820	25 935	26 068	26 223	26 399	26 597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2 222	1 512	1 625	1 677	1 530	1 803	1 691	1 728	1 606	1 774
Goodwill and Intangible Assets	1 034	1 006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	29 014	28 363	28 530	28 667	28 594	28 963	28 960	29 129	29 160	29 503
Regulatory Deferral Balance	1 389	1 420	1 494	1 565	1 638	1 715	1 792	1 867	1 902	1 926
	30 403	29 783	30 023	30 232	30 233	30 677	30 752	30 996	31 061	31 428
LIABILITIES AND EQUITY										
Long-Term Debt	22 408	21 912	21 747	21 494	21 186	21 278	21 987	21 640	21 968	22 750
Current and Other Liabilities	3 931	3 389	3 440	3 742	3 861	4 089	3 331	3 779	3 374	2 746
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1 004	1 038
Retained Earnings	3 575	4 037	4 325	4 470	4 635	4 733	4 830	4 946	5 059	5 238
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30 236	29 685	29 926	30 183	30 233	30 677	30 752	30 996	31 061	31 428
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30 403	29 783	30 023	30 232	30 233	30 677	30 752	30 996	31 061	31 428

Figure 4: Electric Operations Projected Balance Sheet – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36 672	37 680	38 768	39 910	41 171	42 495	43 923	45 182	46 564	48 003
Accumulated Depreciation	(9 818)	(10 579)	(11 346)	(12 134)	(12 963)	(13 841)	(14 753)	(15 690)	(16 642)	(17 650)
Net Plant in Service	26 853	27 101	27 422	27 776	28 208	28 655	29 170	29 491	29 922	30 354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	1 988	2 674	2 750	2 506	2 445	2 515	2 610	2 325	2 537	2 395
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	29 950	30 861	31 236	31 427	32 029	32 424	32 878	33 174	33 687	33 790
Regulatory Deferral Balance	1 952	1 978	2 004	2 027	2 051	2 075	2 100	2 126	2 168	2 209
	31 902	32 839	33 240	33 454	34 080	34 499	34 978	35 300	35 855	35 999
LIABILITIES AND EQUITY										
Long-Term Debt	22 932	23 456	23 143	22 986	22 802	22 716	22 780	22 328	22 242	21 624
Current and Other Liabilities	2 763	2 872	3 146	3 065	3 306	3 468	3 413	3 554	3 681	3 878
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1 113	1 189	1 342	1 538	1 821	1 853	1 973	2 184	2 218	2 254
Retained Earnings	5 439	5 669	5 955	6 214	6 502	6 813	7 164	7 588	8 068	8 599
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31 902	32 839	33 240	33 454	34 080	34 499	34 978	35 300	35 855	35 999
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31 902	32 839	33 240	33 454	34 080	34 499	34 978	35 300	35 855	35 999

Figure 5: Electric Operations Projected Indirect Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	755	467	293	152	173	104	104	125	121	189
Net Movement in Regulatory Deferral	(190)	(100)	(73)	(120)	(122)	(76)	(77)	(75)	(35)	(24)
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	909	900	886	906	916	929	938	950	954	928
Adjustments for Non-Cash Items	39	13	13	12	11	10	6	2	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	(6)	82	41	43	45	46	47	48	49	50
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(950)	(970)	(981)	(986)	(951)
Interest Received	24	15	10	9	5	5	5	2	2	2
Cash Provided by Operating Activities	1 084	1 175	878	718	762	756	760	798	854	965
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	970	1 560	1 390	750	990	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) Investment Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	235	234	235	236
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(235)	(234)	(235)	(236)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	286	(78)	69	(106)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(626)	44	(6)	(178)	240	(146)	2	(150)	144
Cash at Beginning of Year	1 047	933	307	352	346	168	408	262	265	114
Cash at End of Year	933	307	352	346	168	408	262	265	114	258

Figure 6: Electric Operations Projected Indirect Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	211	241	299	271	301	324	366	441	498	550
Net Movement in Regulatory Deferral	(27)	(26)	(25)	(24)	(24)	(24)	(25)	(26)	(42)	(40)
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Net Finance Expense	933	935	938	925	917	915	911	896	888	883
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(13)	(16)	(17)	(20)	(23)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(961)	(966)	(975)	(968)	(962)	(959)	(954)	(947)	(936)	(929)
Interest Received	5	5	9	6	5	4	5	6	7	7
Cash Provided by Operating Activities	1 006	1 061	1 143	1 134	1 188	1 247	1 328	1 425	1 507	1 603
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	570	(40)	(10)	150	360	400	(30)	400	0
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	243	242	240	240	240	240	236	236
Sinking Fund Investment Purchases	(236)	(237)	(243)	(242)	(240)	(240)	(240)	(240)	(236)	(236)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	588	(91)	(287)	(2)	20	(51)	(371)	(28)	(491)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	187	660	51	(270)	(86)	44	69	(308)	190	(163)
Cash at Beginning of Year	258	445	1 105	1 156	886	801	845	914	606	796
Cash at End of Year	445	1 105	1 156	886	801	845	914	606	796	632

Figure 7: Electric Operations Projected Direct Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 174	3 038	2 903	2 766	2 814	2 843	2 886	2 955	3 042	3 117
Cash Paid to Suppliers and Employees	(1 049)	(1 044)	(1 099)	(1 116)	(1 121)	(1 142)	(1 162)	(1 179)	(1 204)	(1 203)
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(950)	(970)	(981)	(986)	(951)
Interest Received	24	15	10	9	5	5	5	2	2	2
Cash Provided by Operating Activities	1 084	1 175	878	718	762	756	760	798	854	965
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	970	1 560	1 390	750	990	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) External Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	235	234	235	236
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(235)	(234)	(235)	(236)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	286	(78)	69	(106)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(626)	44	(6)	(178)	240	(146)	2	(150)	144
Cash at Beginning of Year	1 047	933	307	352	346	168	408	262	265	114
Cash at End of Year	933	307	352	346	168	408	262	265	114	258

Figure 8: Electric Operations Projected Direct Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
PUB/MH II-14 a)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 195	3 299	3 424	3 469	3 586	3 734	3 853	3 962	4 089	4 215
Cash Paid to Suppliers and Employees	(1 232)	(1 278)	(1 314)	(1 373)	(1 442)	(1 533)	(1 577)	(1 596)	(1 652)	(1 691)
Interest Paid	(961)	(966)	(975)	(968)	(962)	(959)	(954)	(947)	(936)	(929)
Interest Received	5	5	9	6	5	4	5	6	7	7
Cash Provided by Operating Activities	1 006	1 061	1 143	1 134	1 188	1 247	1 328	1 425	1 507	1 603
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	570	(40)	(10)	150	360	400	(30)	400	0
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) External Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	243	242	240	240	240	240	236	236
Sinking Fund Investment Purchases	(236)	(237)	(243)	(242)	(240)	(240)	(240)	(240)	(236)	(236)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	588	(91)	(287)	(2)	20	(51)	(371)	(28)	(491)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	187	660	51	(270)	(86)	44	69	(308)	190	(163)
Cash at Beginning of Year	258	445	1 105	1 156	886	801	845	914	606	796
Cash at End of Year	445	1 105	1 156	886	801	845	914	606	796	632

Figure 9: Electric Operations Key Financial Measures – Amended Financial Forecast Scenario Reflecting PUB/MH II-14a

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
PUB/MH II-14 a)

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%	1.90%
Cumulative Rate Increases	0.00%	1.90%	3.83%	5.80%	7.80%	9.85%	11.93%	14.05%	16.22%	18.42%	20.67%	22.96%	25.29%	27.66%	30.08%	32.55%	35.06%	37.63%	40.24%	42.89%
Net Income/(Loss)	$751	$462	$287	$146	$165	$98	$97	$116	$113	$180	$201	$230	$286	$259	$288	$311	$351	$424	$480	$531
Net Income/(Loss) before Net Movement in Reg. Deferral	$565	$367	$220	$32	$51	$28	$27	$49	$86	$165	$185	$215	$274	$247	$277	$300	$341	$415	$456	$509
Retained Earnings	$3 575	$4 037	$4 325	$4 470	$4 635	$4 733	$4 830	$4 946	$5 059	$5 238	$5 439	$5 669	$5 955	$6 214	$6 502	$6 813	$7 164	$7 588	$8 068	$8 599
Total Equity	$4 030	$4 504	$4 868	$5 037	$5 237	$5 375	$5 510	$5 656	$5 798	$6 011	$6 287	$6 593	$7 034	$7 490	$8 062	$8 406	$8 877	$9 513	$10 027	$10 594
Net Debt	$22 963	$22 530	$22 346	$22 382	$22 342	$22 388	$22 454	$22 521	$22 567	$22 542	$22 517	$22 450	$22 312	$22 300	$22 389	$22 370	$22 255	$22 197	$21 984	$21 662
Change in Net Debt - Inc/(Dec)	($330)	($433)	($183)	$36	($40)	$47	$66	$67	$46	($25)	($25)	($67)	($138)	($12)	$89	($19)	($115)	($58)	($213)	($322)
Cash Provided by Operating Activities	$1 084	$1 175	$878	$718	$762	$756	$760	$798	$854	$965	$1 006	$1 061	$1 143	$1 134	$1 188	$1 247	$1 328	$1 425	$1 507	$1 603
Cash Used for Investing Activities	($774)	($711)	($708)	($741)	($725)	($803)	($827)	($865)	($898)	($937)	($977)	($989)	($1 001)	($1 117)	($1 271)	($1 223)	($1 209)	($1 361)	($1 290)	($1 276)
Cash Surplus/(Deficit)	$310	$464	$170	($23)	$36	($46)	($67)	($67)	($44)	$28	$29	$71	$142	$17	($83)	$24	$120	$64	$218	$327
Self Financing Ratio	140%	165%	124%	97%	105%	94%	92%	92%	95%	103%	103%	107%	114%	102%	93%	102%	110%	105%	117%	126%
Cash Flow to Net Debt	4.7%	5.2%	3.9%	3.2%	3.4%	3.4%	3.4%	3.5%	3.8%	4.3%	4.5%	4.7%	5.1%	5.1%	5.3%	5.6%	6.0%	6.4%	6.9%	7.4%
Net Finance Expense	$909	$900	$886	$906	$916	$929	$938	$950	$954	$928	$933	$935	$938	$925	$917	$915	$911	$896	$888	$883
Debt Ratio	85%	83%	82%	82%	81%	81%	80%	80%	80%	79%	78%	77%	76%	75%	74%	73%	71%	70%	69%	67%
Interest Paid	$1 064	$834	$935	$941	$936	$950	$970	$981	$986	$951	$961	$966	$975	$968	$962	$959	$954	$947	$936	$929
EBIT Interest Coverage Ratio	1.80	1.50	1.31	1.16	1.18	1.10	1.10	1.12	1.12	1.19	1.21	1.24	1.30	1.27	1.30	1.33	1.38	1.46	1.52	1.58
EBITDA Interest Coverage Ratio	2.48	2.21	2.06	1.91	1.94	1.88	1.89	1.92	1.96	2.09	2.13	2.19	2.28	2.30	2.36	2.43	2.53	2.66	2.77	2.89
Capital Coverage Ratio	2.26	2.22	1.61	1.19	1.20	1.07	1.04	1.03	1.05	1.14	1.13	1.17	1.25	1.22	1.26	1.30	1.36	1.44	1.50	1.56

b) Please see Figures 10 and 11 for projected operating statements, Figures 12 and 13 for projected balance sheets, Figures 14 and 15 for projected indirect cash flow statements, Figures 16 and 17 for projected direct cash flow statements, and Figure 18 for a schedule of key financial measures based on the alternative scenario provided in PUB/MH I-32 reflecting indefinite continuation of the *Change in depreciation method* (CGAAP ASL versus ELG difference), with the balance to be amortized over a **70-year period**.

Figure 10: Electric Operations Projected Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
REVENUES										
Domestic Revenue										
at approved rates	1 875	1 847	1 853	1 863	1 874	1 888	1 904	1 922	1 943	1 973
additional	-	22	69	105	142	181	221	262	306	353
Extraprovincial	1 283	1 153	964	780	778	754	740	748	768	766
Other	29	29	29	30	31	32	37	38	39	40
	3 186	3 050	2 914	2 777	2 825	2 854	2 901	2 970	3 056	3 132
EXPENSES										
Operating and Administrative	589	657	687	683	697	711	724	736	739	754
Net Finance Expense	909	900	886	906	916	929	938	951	954	929
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Water Rentals and Assessments	81	83	79	76	77	78	78	78	78	78
Fuel and Power Purchased	139	163	156	182	173	173	176	177	198	186
Capital and Other Taxes	160	162	163	165	166	169	170	172	174	176
Other Expenses	118	80	74	72	72	77	80	83	83	79
Corporate Allocation	7	7	7	7	7	7	7	3	1	1
	2 621	2 684	2 695	2 748	2 777	2 831	2 880	2 927	2 978	2 976
Net Income before Net Movement in Reg. Deferral	565	367	219	29	48	24	21	43	78	156
Net Movement in Regulatory Deferral	190	105	81	130	132	88	90	89	50	40
Net Income	755	471	300	159	180	112	111	132	128	196
Net Income Attributable to:										
Manitoba Hydro	**751**	**466**	**294**	**152**	**172**	**105**	**104**	**124**	**120**	**187**
Wuskwatim Investment Entity	4	5	6	7	7	7	7	8	9	9
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	4	5	6	7	7	7	7	8	9	9
	755	471	300	159	180	112	111	132	128	196
Percent Increase	0.00%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%
Cumulative Percent Increase	0.00%	1.86%	3.75%	5.68%	7.64%	9.64%	11.68%	13.75%	15.87%	18.02%

Figure 11: Electric Operations Projected Operating Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED OPERATING STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
REVENUES										
Domestic Revenue										
at approved rates	2 010	2 051	2 095	2 151	2 212	2 274	2 337	2 400	2 466	2 528
additional	403	457	514	578	646	718	795	877	963	1 052
Extraprovincial	754	762	783	707	693	705	682	643	615	588
Other	41	43	45	49	53	56	58	61	64	65
	3 209	3 313	3 438	3 484	3 604	3 753	3 872	3 981	4 108	4 233
EXPENSES										
Operating and Administrative	769	785	800	816	833	849	872	896	914	939
Net Finance Expense	934	937	940	928	922	921	917	904	897	893
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Water Rentals and Assessments	78	79	80	80	80	80	80	80	81	81
Fuel and Power Purchased	191	214	232	270	317	387	403	393	426	436
Capital and Other Taxes	178	183	184	187	190	193	195	198	201	203
Other Expenses	86	89	91	94	97	100	104	107	111	113
Corporate Allocation	1	1	1	1	1	1	1	1	1	1
	3 035	3 111	3 179	3 255	3 347	3 477	3 557	3 596	3 686	3 761
Net Income before Net Movement in Reg. Deferral	174	203	259	230	256	276	315	385	422	472
Net Movement in Regulatory Deferral	44	45	46	46	47	49	52	54	72	72
Net Income	218	248	305	275	304	325	367	439	494	544
Net Income Attributable to:										
Manitoba Hydro	**208**	**236**	**292**	**263**	**291**	**312**	**351**	**422**	**476**	**525**
Wuskwatim Investment Entity	10	11	12	12	13	13	16	17	18	19
Keeyask Investment Entity	-	-	-	-	-	-	-	-	-	-
Total Non-Controlling Interests	10	11	12	12	13	13	16	17	18	19
	218	248	305	275	304	325	367	439	494	544
Percent Increase	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%
Cumulative Percent Increase	20.21%	22.45%	24.72%	27.04%	29.40%	31.80%	34.25%	36.75%	39.29%	41.87%

Figure 12: Electric Operations Projected Balance Sheet – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
ASSETS										
Plant in Service	28 814	29 416	30 089	30 739	31 593	32 345	33 112	33 929	34 789	35 693
Accumulated Depreciation	(3 525)	(4 083)	(4 638)	(5 186)	(5 773)	(6 409)	(7 044)	(7 706)	(8 390)	(9 096)
Net Plant in Service	25 288	25 333	25 451	25 553	25 820	25 935	26 068	26 223	26 399	26 597
Construction in Progress	470	512	472	484	319	328	336	343	350	357
Current and Other Assets	2 222	1 512	1 623	1 672	1 522	1 791	1 674	1 704	1 574	1 733
Goodwill and Intangible Assets	1 034	1 006	981	954	925	896	866	836	805	774
Total Assets before Regulatory Deferral	29 014	28 362	28 528	28 663	28 587	28 951	28 943	29 105	29 128	29 461
Regulatory Deferral Balance	1 389	1 425	1 506	1 587	1 670	1 758	1 848	1 937	1 986	2 027
	30 403	29 787	30 034	30 249	30 257	30 709	30 791	31 042	31 114	31 488
LIABILITIES AND EQUITY										
Long-Term Debt	22 408	21 912	21 747	21 494	21 186	21 278	21 987	21 640	21 968	22 750
Current and Other Liabilities	3 931	3 389	3 440	3 742	3 861	4 089	3 331	3 779	3 374	2 746
Provisions	67	65	63	61	59	56	54	52	51	50
Deferred Revenue	626	683	755	830	891	917	945	973	1 004	1 038
Retained Earnings	3 575	4 041	4 335	4 487	4 660	4 764	4 868	4 992	5 112	5 298
Accumulated Other Comprehensive Income	(371)	(402)	(404)	(413)	(401)	(396)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	30 236	29 689	29 936	30 201	30 257	30 709	30 791	31 042	31 114	31 488
Regulatory Deferral Balance	166	98	98	49	0	0	0	0	0	0
	30 403	29 787	30 034	30 249	30 257	30 709	30 791	31 042	31 114	31 488

Figure 13: Electric Operations Projected Balance Sheet – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED BALANCE SHEET
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
ASSETS										
Plant in Service	36 672	37 680	38 768	39 910	41 171	42 495	43 923	45 182	46 564	48 003
Accumulated Depreciation	(9 818)	(10 579)	(11 346)	(12 134)	(12 963)	(13 841)	(14 753)	(15 690)	(16 642)	(17 650)
Net Plant in Service	26 853	27 101	27 422	27 776	28 208	28 655	29 170	29 491	29 922	30 354
Construction in Progress	365	373	381	492	753	662	536	826	726	569
Current and Other Assets	1 936	2 609	2 671	2 610	2 530	2 573	2 642	2 327	2 506	2 527
Goodwill and Intangible Assets	743	713	683	652	622	592	562	532	502	472
Total Assets before Regulatory Deferral	29 898	30 796	31 156	31 532	32 113	32 482	32 910	33 176	33 656	33 922
Regulatory Deferral Balance	2 071	2 116	2 162	2 207	2 255	2 304	2 355	2 409	2 481	2 553
	31 969	32 912	33 318	33 739	34 368	34 786	35 266	35 585	36 136	36 475
LIABILITIES AND EQUITY										
Long-Term Debt	22 932	23 456	23 143	23 186	23 002	22 916	22 980	22 528	22 442	22 024
Current and Other Liabilities	2 763	2 872	3 146	3 067	3 307	3 468	3 414	3 554	3 682	3 878
Provisions	49	48	47	45	44	43	42	40	39	38
Deferred Revenue	1 113	1 189	1 342	1 538	1 821	1 853	1 973	2 184	2 218	2 254
Retained Earnings	5 506	5 742	6 034	6 297	6 588	6 900	7 251	7 673	8 149	8 674
Accumulated Other Comprehensive Income	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)	(394)
Total Liabilities and Equity before Regulatory Deferral	31 969	32 912	33 318	33 739	34 368	34 786	35 266	35 585	36 136	36 475
Regulatory Deferral Balance	0	0	0	0	0	0	0	0	0	0
	31 969	32 912	33 318	33 739	34 368	34 786	35 266	35 585	36 136	36 475

Figure 14: Electric Operations Projected Indirect Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Net Income (Loss)	755	471	300	159	180	112	111	132	128	196
Net Movement in Regulatory Deferral	(190)	(105)	(81)	(130)	(132)	(88)	(90)	(89)	(50)	(40)
Add Back:										
Depreciation and Amortization	618	632	643	657	669	688	707	727	750	773
Net Finance Expense	909	900	886	906	916	929	938	951	954	929
Adjustments for Non-Cash Items	39	13	13	12	11	10	6	2	(1)	(2)
Adjustments for Non-Cash Working Capital Accounts	(6)	82	41	43	45	46	47	48	49	50
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(950)	(970)	(981)	(987)	(952)
Interest Received	24	15	10	9	5	5	5	2	2	1
Cash Provided by Operating Activities	1 084	1 175	877	715	759	752	755	792	846	955
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	970	1 560	1 390	750	990	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) Investment Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	235	234	235	236
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(235)	(234)	(235)	(236)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	286	(78)	69	(106)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(627)	43	(8)	(181)	235	(151)	(4)	(158)	134
Cash at Beginning of Year	1 047	933	307	350	341	160	396	245	241	82
Cash at End of Year	933	307	350	341	160	396	245	241	82	217

Figure 15: Electric Operations Projected Indirect Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED INDIRECT CASH FLOW STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Net Income (Loss)	218	248	305	275	304	325	367	439	494	544
Net Movement in Regulatory Deferral	(44)	(45)	(46)	(46)	(47)	(49)	(52)	(54)	(72)	(72)
Add Back:										
Depreciation and Amortization	797	824	851	878	908	945	984	1 016	1 055	1 095
Net Finance Expense	934	937	940	928	922	921	917	904	897	893
Adjustments for Non-Cash Items	(3)	(4)	(6)	(9)	(13)	(16)	(17)	(20)	(23)	(24)
Adjustments for Non-Cash Working Capital Accounts	51	52	53	54	55	57	58	59	60	61
Interest Paid	(962)	(966)	(975)	(968)	(966)	(967)	(958)	(956)	(945)	(938)
Interest Received	4	3	7	5	5	5	4	6	6	6
Cash Provided by Operating Activities	995	1 048	1 128	1 118	1 167	1 221	1 303	1 394	1 474	1 566
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	570	(40)	190	150	360	400	(30)	400	200
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) Investment Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	243	242	242	242	242	242	238	238
Sinking Fund Investment Purchases	(236)	(237)	(243)	(242)	(242)	(242)	(242)	(242)	(238)	(238)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	588	(91)	(87)	(2)	20	(51)	(371)	(28)	(291)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	176	647	37	(85)	(106)	18	43	(338)	156	(1)
Cash at Beginning of Year	217	393	1 040	1 076	991	885	903	946	608	764
Cash at End of Year	393	1 040	1 076	991	885	903	946	608	764	763

Figure 16: Electric Operations Projected Direct Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2022/23 to 2031/32

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 174	3 038	2 901	2 764	2 811	2 839	2 881	2 949	3 035	3 110
Cash Paid to Suppliers and Employees	(1 049)	(1 044)	(1 099)	(1 116)	(1 121)	(1 142)	(1 162)	(1 179)	(1 204)	(1 204)
Interest Paid	(1 064)	(834)	(935)	(941)	(936)	(950)	(970)	(981)	(987)	(952)
Interest Received	24	15	10	9	5	5	5	2	2	1
Cash Provided by Operating Activities	1 084	1 175	877	715	759	752	755	792	846	955
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	657	350	750	920	970	1 560	1 390	750	990	780
Retirement of Long-Term Debt	(1 103)	(1 439)	(875)	(901)	(1 183)	(1 274)	(1 468)	(680)	(1 096)	(663)
Repayments from/(Advances to) External Entities	22	(0)	(0)	(0)	(0)	(0)	(0)	(0)	7	11
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	248	244	234	233	234	232	235	234	235	236
Sinking Fund Investment Purchases	(248)	(244)	(234)	(233)	(234)	(232)	(235)	(234)	(235)	(236)
Other	(1)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(8)	(11)
Cash Provided by Financing Activities	(425)	(1 090)	(126)	18	(214)	286	(78)	69	(106)	116
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(672)	(692)	(699)	(735)	(713)	(756)	(784)	(825)	(867)	(911)
Additions to Intangible Assets	(20)	(12)	(18)	(14)	(13)	(13)	(13)	(13)	(14)	(14)
Net Contributions Received	44	72	81	83	74	38	41	45	48	53
Cash Paid for Mitigation and Major Development Obligations	(103)	(57)	(52)	(55)	(54)	(54)	(55)	(55)	(50)	(51)
Cash Paid for Transmission Rights Obligations	(21)	(20)	(19)	(19)	(18)	(17)	(16)	(15)	(15)	(14)
Other	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)
Cash Used for Investing Activities	(774)	(711)	(708)	(741)	(725)	(803)	(827)	(865)	(898)	(937)
Net Increase (Decrease) in Cash	(114)	(627)	43	(8)	(181)	235	(151)	(4)	(158)	134
Cash at Beginning of Year	1 047	933	307	350	341	160	396	245	241	82
Cash at End of Year	933	307	350	341	160	396	245	241	82	217

Figure 17: Electric Operations Projected Direct Cash Flow Statement – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b – 2032/33 to 2041/42

ELECTRIC OPERATIONS PROJECTED DIRECT CASH FLOW STATEMENT
PUB/MH II-14 b)
(In Millions of Dollars)

For the year ended March 31	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42
OPERATING ACTIVITIES										
Cash Receipts from Customers	3 186	3 289	3 412	3 455	3 571	3 717	3 835	3 941	4 065	4 190
Cash Paid to Suppliers and Employees	(1 233)	(1 278)	(1 315)	(1 374)	(1 443)	(1 534)	(1 578)	(1 597)	(1 653)	(1 692)
Interest Paid	(962)	(966)	(975)	(968)	(966)	(967)	(958)	(956)	(945)	(938)
Interest Received	4	3	7	5	5	5	4	6	6	6
Cash Provided by Operating Activities	995	1 048	1 128	1 118	1 167	1 221	1 303	1 394	1 474	1 566
FINANCING ACTIVITIES										
Proceeds from Long-Term Debt	160	570	(40)	190	150	360	400	(30)	400	200
Retirement of Long-Term Debt	0	20	(49)	(275)	(150)	(338)	(449)	(339)	(425)	(488)
Repayments from/(Advances to) External Entities	9	10	11	12	12	12	12	15	16	16
Contributions from Non-Controlling Interests	0	0	0	0	0	0	0	0	0	0
Proceeds from Short-Term Borrowings, Net	0	0	0	0	0	0	0	0	0	0
Sinking Fund Investment Withdrawals	236	237	243	242	242	242	242	242	238	238
Sinking Fund Investment Purchases	(236)	(237)	(243)	(242)	(242)	(242)	(242)	(242)	(238)	(238)
Other	(11)	(12)	(13)	(14)	(14)	(15)	(14)	(18)	(19)	(20)
Cash Provided by Financing Activities	158	588	(91)	(87)	(2)	20	(51)	(371)	(28)	(291)
INVESTING ACTIVITIES										
Additions to Property, Plant and Equipment	(993)	(1 010)	(1 109)	(1 270)	(1 517)	(1 218)	(1 294)	(1 539)	(1 297)	(1 286)
Additions to Intangible Assets	(14)	(15)	(15)	(16)	(16)	(16)	(17)	(17)	(18)	(18)
Net Contributions Received	95	98	186	232	322	73	163	257	81	84
Cash Paid for Mitigation and Major Development Obligations	(51)	(50)	(50)	(51)	(50)	(51)	(52)	(53)	(54)	(55)
Cash Paid for Transmission Rights Obligations	(13)	(12)	(12)	(11)	(10)	(10)	(9)	(9)	(1)	0
Other	(0)	0	0	0	0	0	0	0	0	0
Cash Used for Investing Activities	(977)	(989)	(1 001)	(1 117)	(1 271)	(1 223)	(1 209)	(1 361)	(1 290)	(1 276)
Net Increase (Decrease) in Cash	176	647	37	(85)	(106)	18	43	(338)	156	(1)
Cash at Beginning of Year	217	393	1 040	1 076	991	885	903	946	608	764
Cash at End of Year	393	1 040	1 076	991	885	903	946	608	764	763

Figure 18: Electric Operations Key Financial Measures – Amended Financial Forecast Scenario Reflecting PUB/MH II-14b

ELECTRIC OPERATIONS KEY FINANCIAL MEASURES
PUB/MH II-14 b)

For the year ended March 31	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Rate Increases	0.00%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%
Cumulative Rate Increases	0.00%	1.86%	3.75%	5.68%	7.64%	9.64%	11.68%	13.75%	15.87%	18.02%	20.21%	22.45%	24.72%	27.04%	29.40%	31.80%	34.25%	36.75%	39.29%	41.87%
Net Income/(Loss)	$751	$466	$294	$152	$172	$105	$104	$124	$120	$187	$208	$236	$292	$263	$291	$312	$351	$422	$476	$525
Net Income/(Loss) before Net Movement in Reg. Deferral	$565	$367	$219	$29	$48	$24	$21	$43	$78	$156	$174	$203	$259	$230	$256	$276	$315	$385	$422	$472
Retained Earnings	$3 575	$4 041	$4 335	$4 487	$4 660	$4 764	$4 868	$4 992	$5 112	$5 298	$5 506	$5 742	$6 034	$6 297	$6 588	$6 900	$7 251	$7 673	$8 149	$8 674
Total Equity	$4 030	$4 508	$4 878	$5 054	$5 261	$5 407	$5 548	$5 702	$5 851	$6 071	$6 353	$6 665	$7 112	$7 573	$8 148	$8 493	$8 964	$9 598	$10 108	$10 668
Net Debt	$22 963	$22 530	$22 348	$22 386	$22 350	$22 401	$22 472	$22 545	$22 599	$22 583	$22 570	$22 515	$22 392	$22 395	$22 504	$22 511	$22 422	$22 395	$22 216	$21 931
Change in Net Debt - Inc/(Dec)	($330)	($433)	($182)	$38	($37)	$51	$71	$73	$54	($16)	($14)	($54)	($123)	$3	$109	$7	($89)	($27)	($179)	($285)
Cash Provided by Operating Activities	$1 084	$1 175	$877	$715	$759	$752	$755	$792	$846	$955	$995	$1 048	$1 128	$1 118	$1 167	$1 221	$1 303	$1 394	$1 474	$1 566
Cash Used for Investing Activities	($774)	($711)	($708)	($741)	($725)	($803)	($827)	($865)	($898)	($937)	($977)	($989)	($1 001)	($1 117)	($1 271)	($1 223)	($1 209)	($1 361)	($1 290)	($1 276)
Cash Surplus/(Deficit)	$310	$464	$168	($26)	$33	($50)	($73)	($74)	($52)	$18	$18	$59	$128	$2	($104)	($2)	$94	$33	$184	$290
Self Financing Ratio	140%	165%	124%	97%	105%	94%	91%	91%	94%	102%	102%	106%	113%	100%	92%	100%	108%	102%	114%	123%
Cash Flow to Net Debt	4.7%	5.2%	3.9%	3.2%	3.4%	3.4%	3.4%	3.5%	3.7%	4.2%	4.4%	4.7%	5.0%	5.0%	5.2%	5.4%	5.8%	6.2%	6.6%	7.1%
Net Finance Expense	$909	$900	$886	$906	$916	$929	$938	$951	$954	$929	$934	$937	$940	$928	$922	$921	$917	$904	$897	$893
Debt Ratio	85%	83%	82%	82%	81%	81%	80%	80%	79%	79%	78%	77%	76%	75%	73%	73%	71%	70%	69%	67%
Interest Paid	$1 064	$834	$935	$941	$936	$950	$970	$981	$987	$952	$962	$966	$975	$968	$966	$967	$958	$956	$945	$938
EBIT Interest Coverage Ratio	1.80	1.50	1.32	1.16	1.18	1.11	1.11	1.13	1.12	1.20	1.22	1.25	1.30	1.28	1.31	1.33	1.37	1.45	1.51	1.57
EBITDA Interest Coverage Ratio	2.48	2.21	2.06	1.91	1.93	1.87	1.88	1.92	1.95	2.08	2.12	2.18	2.26	2.27	2.33	2.40	2.50	2.61	2.71	2.83
Capital Coverage Ratio	2.26	2.22	1.60	1.19	1.20	1.06	1.03	1.03	1.04	1.12	1.12	1.16	1.23	1.20	1.24	1.28	1.33	1.41	1.47	1.52

REFERENCE:

Appendix 9.9

PREAMBLE TO IR (IF ANY):

In the process of computing the Company's depreciation rates, it was necessary to re-allocate the depreciation reserve to the subcomponent account level while maintaining the book reserve by source account. To allow the relative reserve positions of each account within a function to mirror the life characteristics of the underlying assets, the book accumulated provision for depreciation within each function was allocated through the use of the theoretical depreciation reserve model.

QUESTION:

a) Please compare the accumulated depreciation variance based on the 2019 ELG study (Table 4A) with that used in the Alliance ALS study.

b) Please explain how Alliance addressed the annual provision for true up between the theoretical reserve and the actual allocated book reserve.

RESPONSE:

a) Figure 1 below provides a comparison of the accumulated depreciation variance from the IFRS-Compliant ASL depreciation study performed by Alliance (Appendix 9.11) with the CGAAP ASL accumulated depreciation variance shown the 2019 Depreciation Study (MFR 95 Table 4A).

Figure 1 Accumulated Depreciation Variance – IFRS-ASL vs CGAAP ASL

Manitoba Hydro Accumulated Depreciation Variance
Comparison of Prior CGAAP ASL and IFRS-Compliant ASL
For Electric Plant in Service as at March 31, 2019

Asset Category	CGAAP ASL Accumulated Depreciation Variance (MFR95 Table 4A)	IFRS ASL Accumulated Depreciation Variance (Attachment 1)	Difference
Hydraulic Generation			
Great Falls	(8,688,409)	245,975	8,934,384
Pointe Du Bois	(14,025,432)	(12,918,316)	1,107,116
Pointe Du Bois - New Spillway	(3,177,240)	(6,639,151)	(3,461,911)
Seven Sisters	(15,949,450)	(7,896,525)	8,052,926
Slave Falls	(1,222,154)	1,565,145	2,787,299
Pine Falls	(5,732,169)	(1,254,087)	4,478,082
Mcarthur Falls	(6,194,956)	(710,085)	5,484,871
Kelsey	5,787,102	13,377,865	7,590,763
Grand Rapids	(27,842,255)	(6,479,191)	21,363,065
Kettle	(33,246,403)	(19,922,352)	13,324,051
Laurie River	(2,382,717)	(1,707,054)	675,663
Jenpeg	(20,246,088)	(14,010,528)	6,235,560
Lake Winnipeg Regulation	(17,412,873)	(13,334,787)	4,078,087
Churchill River Diversion	(25,461,846)	(20,410,746)	5,051,100
Long Spruce	(46,759,846)	(37,481,821)	9,278,025
Limestone	(85,352,873)	(77,682,580)	7,670,294
Wuskwatim	(325,818)	717,386	1,043,204
Infrastructure	7,484,142	6,093,356	(1,390,787)
Hydraulic Generation Total	(300,749,287)	(198,447,495)	102,301,792
Thermal Generation - Brandon 6 and 7	(57,658,394)	(77,286,032)	(19,627,638)
Diesel Generation	(15,851,975)	(18,909,566)	(3,057,592)
Transmission Lines	(81,040,678)	(64,787,105)	16,253,573
Substations	(376,041,792)	(437,520,193)	(61,478,401)
Distribution	(373,916,677)	(407,435,905)	(33,519,229)
Meters	(921,174)	(2,369,418)	(1,448,244)
Communication	(11,137,508)	(22,029,598)	(10,892,090)
Motor Vehicles	2,524,627	(2,479,771)	(5,004,398)
Buildings	1,725,453	31,811,276	30,085,822
General Equipment	3,810,239	10,992,477	7,182,238
Property, Plant And Equipment Total	(1,209,257,164)	(1,188,461,329)	20,795,835
Easements	(715,649)	(18,757)	696,891
Computer Software and Development	(17,223,116)	(28,428,105)	(11,204,989)
Intangible Assets Total	(17,938,765)	(28,446,863)	(10,508,098)
Manitoba Hydro Total Excluding Selkirk GS	**(1,227,195,930)**	**(1,216,908,192)**	**10,287,737**
Thermal Generation - Selkirk *	(21,798,148)		
Manitoba Hydro Total Including Selkirk GS	**(1,248,994,078)**		

Note 1: Selkirk GS was removed from scope of the Alliance IFRS-Compliant ASL Depreciation Study as the station has ceased operations since completion of the Concentric 2019 Depreciation Study.

b) For depreciated plant, Alliance determines the annual accrual amount at an account level by dividing the unaccrued balance by remaining life. The accrued balance could be expressed as a theoretical unaccrued balance plus an accumulated depreciation variance. As such, the Alliance determination of an annual accrual amount contains an embedded accumulated depreciation true-up portion which allocates the variance over remaining life.

Attachment 1 to this response shows the calculation of the IFRS-compliant ASL accumulated depreciation variances and the accumulated depreciation true-up portion of the annual accrual based on the theoretical reserve, allocated book depreciation and remaining life figures provided in Appendix 9.11.

Manitoba Hydro Consolidated Electric Operations
IFRS-Compliant ASL - Accumulated Depreciation Variances
For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
MANITOBA HYDRO							
GREAT FALLS							
1105A-01	Concrete Dams, Dykes and Substructures	1,276,142	1,074,798	201,344	34.61	5,817	
1105A-02	Embankment Dams and Dykes	6,047,499	6,107,733	(60,233)	41.19	(1,462)	
1105A-05	Concrete Dams, Dykes and Substructures Refurbishment	4,590,384	3,693,723	896,661	39.72	22,577	
1105A-06	Embankment Dams and Dykes Refurbishments	3,694,583	2,924,354	770,229	9.79	78,654	
1105A-10	Embankment Dams and Dykes Additions for Sustainment	2,574,998	2,038,175	536,823	9.61	55,868	
1105B-01	Superstructures & Support Bldg - Very Long	178,893	172,968	5,925	35.18	168	
1105B-02	Superstructures & Support Bldg - Long	405,111	362,511	42,600	6.00	7,095	
1105B-03	Superstructures & Support Bldg - Medium-Long	1,512,493	1,322,406	190,087	27.98	6,793	
1105B-04	Superstructures & Support Bldg - Medium	1,656,782	1,431,203	225,580	17.53	12,868	
1105B-05	Superstructures & Support Bldg - Medium-Short	851,174	739,152	112,023	6.25	17,910	
1105B-06	Superstructures & Support Bldg - Short	376,987	330,398	46,589	1.74	26,712	
1105D-01	Spillway Substructure	19,703	19,703	-	7.27	-	
1105D-03	Spillway Additions for Sustainment	2,726	2,158	568	13.50	42	
1105D-02	Spillway Refurbishment	664,063	756,975	(92,912)	13.87	(6,700)	
1105D-04	Spillway Superstructure Original construction	29,089	24,737	4,353	0.79	5,522	
1105D-05	Spillway Superstructure Subsequent modifications	36,635	40,933	(4,298)	18.60	(231)	
1105E-01	Water Control Support	2,670,019	2,719,052	(49,033)	42.53	(1,153)	
1105E-02	Water Control Support Additions for Sustainment	9,883,409	10,064,912	(181,503)	9.84	(18,445)	
1105F-01	Roads, Grounds and Physical Site Security	253,386	270,165	(16,779)	38.27	(438)	
1105G-01	Turbine and Generator Structural and Embedments	1,371,880	1,229,412	142,468	37.09	3,842	
1105G-02	Turbine Runner - Fixed Blade	3,226,519	2,891,450	335,069	41.72	8,031	
1105G-04	Turbine Regulation	2,275,387	2,039,091	236,296	39.75	5,945	
1105G-05	Turbine Stationary Parts	1,481,378	1,327,539	153,839	40.74	3,777	
1105G-06	Generator Frames and Core	2,221,426	1,990,734	230,692	38.95	5,923	
1105G-07	Generator Rotor	996,186	892,733	103,452	29.97	3,452	
1105G-08	Generator Windings	1,650,466	1,479,067	171,398	30.47	5,625	
1105P-01	Generating Station Electrical Systems - High Voltage	2,906,891	3,336,559	(429,668)	38.29	(11,220)	
1105P-02	Generating Station Electrical Systems - Low Voltage	2,242,796	2,693,032	(450,236)	21.05	(21,393)	
1105Q-01	Mechanical Instrumentation, Control and Protection	229,761	174,670	55,091	38.58	1,428	
1105Q-02	Analog Instrumentation, Control and Protection	816,255	972,386	(156,131)	29.02	(5,380)	
1105Q-03	Digital Instrumentation, Control and Protection	9,188,509	11,219,577	(2,031,068)	14.40	(141,091)	
1105Q-04	Backup Power Systems	88,708	102,761	(14,052)	13.68	(1,027)	
1105Q-05	Cyber and Intelligence Security	950,092	1,134,315	(184,223)	5.37	(34,322)	
1105R-01	Mechanical Auxiliary Systems	3,379,272	3,827,589	(448,317)	35.11	(12,769)	
1105R-02	Pressure systems	530,058	621,296	(91,238)	35.37	(2,580)	
1105R-03	Tools and test equipment	743,530	748,949	(5,419)	0.44	(1,806)	Note 1
	GREAT FALLS TOTAL	**71,023,192**	**70,777,217**	**245,975**		**18,032**	
POINTE DU BOIS							
1110A-01	Concrete Dams, Dykes and Substructures	55,438	88,772	(33,334)	35.41	(941)	
1110A-02	Embankment Dams and Dykes	18,479	29,591	(11,111)	35.41	(314)	
1110A-05	Concrete Dams, Dykes and Substructures Refurbishment	196,512	263,516	(67,003)	35.15	(1,906)	
1110A-06	Embankment Dams and Dykes Refurbishments	68,436	176,991	(108,555)	26.48	(4,099)	
1110A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	931,519	1,562,372	(630,852)	14.17	(44,526)	
1110B-01	Superstructures & Support Bldg - Very Long	2,223	3,560	(1,337)	35.28	(38)	
1110B-02	Superstructures & Support Bldg - Long	39,879	55,682	(15,803)	32.94	(480)	
1110B-03	Superstructures & Support Bldg - Medium-Long	208,327	319,198	(110,871)	33.14	(3,346)	
1110B-04	Superstructures & Support Bldg - Medium	949,922	1,596,079	(646,157)	24.69	(26,168)	
1110B-05	Superstructures & Support Bldg - Medium-Short	632,803	820,430	(187,627)	19.00	(9,873)	
1110B-06	Superstructures & Support Bldg - Short	383,835	483,137	(99,302)	5.58	(17,808)	
1110D-02	Spillway Refurbishment	47,077	51,463	(4,386)	29.29	(150)	
1110E-01	Water Control Support	124,054	141,287	(17,233)	35.25	(489)	
1110F-01	Roads, Grounds and Physical Site Security	240,177	367,635	(127,458)	32.89	(3,876)	
1110G-01	Turbine and Generator Structural and Embedments	241,803	433,120	(191,316)	34.65	(5,521)	
1110G-02	Turbine Runner - Fixed Blade	7,046,968	12,622,580	(5,575,613)	35.13	(158,734)	
1110G-04	Turbine Regulation	744,289	1,333,175	(588,887)	33.80	(17,422)	
1110G-05	Turbine Stationary Parts	836,923	1,499,102	(662,179)	34.58	(19,147)	
1110G-06	Generator Frames and Core	189,809	339,987	(150,178)	33.75	(4,450)	

Manitoba Hydro Consolidated Electric Operations
IFRS-Compliant ASL - Accumulated Depreciation Variances
For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1110G-07	Generator Rotor	98,854	177,069	(78,214)	34.02	(2,299)
1110G-08	Generator Windings	1,072,843	1,921,685	(848,842)	34.20	(24,822)
1110L-01	GS Licensing - No Subcomponents	7,504	13,659	(6,155)	35.50	(173)
1110P-01	Generating Station Electrical Systems - High Voltage	1,532,642	3,010,713	(1,478,071)	33.81	(43,718)
1110P-02	Generating Station Electrical Systems - Low Voltage	516,329	1,009,196	(492,867)	28.76	(17,136)
1110Q-01	Mechanical Instrumentation, Control and Protection	41,710	85,707	(43,998)	32.93	(1,336)
1110Q-02	Analog Instrumentation, Control and Protection	4,893	9,613	(4,719)	30.14	(157)
1110Q-03	Digital Instrumentation, Control and Protection	260,482	306,588	(46,106)	17.77	(2,594)
1110Q-04	Backup Power Systems	284,380	387,717	(103,337)	14.05	(7,352)
1110Q-05	Cyber and Intelligence Security	287,855	287,388	467	7.76	60
1110R-01	Mechanical Auxiliary Systems	948,629	1,481,440	(532,811)	33.60	(15,859)
1110R-02	Pressure systems	98,673	153,133	(54,460)	33.89	(1,607)
	POINTE DU BOIS TOTAL	**18,113,269**	**31,031,585**	**(12,918,316)**		**(436,280)**
POINTE DU BOIS NEW SPILLWAY						
1111A-02	Embankment Dams and Dykes	3,047,506	2,861,095	186,410	117.15	1,591
1111B-02	Superstructures & Support Bldg - Long	86,600	54,207	32,394	70.59	459
1111B-03	Superstructures & Support Bldg - Medium-Long	77,943	61,727	16,216	50.92	318
1111B-04	Superstructures & Support Bldg - Medium	148,291	92,821	55,470	31.07	1,785
1111B-05	Superstructures & Support Bldg - Medium-Short	139,389	87,249	52,140	20.71	2,518
1111B-06	Superstructures & Support Bldg - Short	142,231	89,028	53,203	11.18	4,759
1111D-01	Spillway Substructure	11,863,996	14,572,131	(2,708,135)	85.55	(31,654)
1111D-04	Spillway Superstructure Original construction	6,537,122	8,029,317	(1,492,196)	65.55	(22,763)
1111E-01	Water Control Support	5,377,875	7,112,907	(1,735,033)	75.57	(22,960)
1111F-01	Roads, Grounds and Physical Site Security	2,791,457	3,893,078	(1,101,621)	44.80	(24,587)
1111P-02	Generating Station Electrical Systems - Low Voltage	307,326	248,525	58,802	35.71	1,647
1111Q-02	Analog Instrumentation, Control and Protection	44,609	101,410	(56,801)	44.95	(1,264)
	POINTE DU BOIS NEW SPILLWAY TOTAL	**30,564,345**	**37,203,497**	**(6,639,151)**		**(90,150)**
SEVEN SISTERS						
1115A-01	Concrete Dams, Dykes and Substructures	6,387,453	7,233,590	(846,137)	41.07	(20,602)
1115A-02	Embankment Dams and Dykes	3,477,629	3,458,492	19,137	44.18	433
1115A-05	Concrete Dams, Dykes and Substructures Refurbishment	10,472,831	10,861,050	(388,219)	40.22	(9,652)
1115A-06	Embankment Dams and Dykes Refurbishments	1,659,438	1,649,918	9,521	13.79	690
1115A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	460,475	457,533	2,942	20.87	141
1115A-10	Embankment Dams and Dykes Additions for Sustainment	2,102,314	2,088,883	13,431	9.37	1,434
1115B-01	Superstructures & Support Bldg - Very Long	123,605	148,730	(25,125)	22.69	(1,107)
1115B-02	Superstructures & Support Bldg - Long	3,652	3,130	522	24.87	21
1115B-03	Superstructures & Support Bldg - Medium-Long	548,883	570,609	(21,725)	3.27	(6,635)
1115B-04	Superstructures & Support Bldg - Medium	923,985	1,045,029	(121,044)	20.11	(6,018)
1115B-05	Superstructures & Support Bldg - Medium-Short	272,390	307,700	(35,310)	9.23	(3,827)
1115B-06	Superstructures & Support Bldg - Short	81,188	69,632	11,556	5.30	2,180
1115D-01	Spillway Substructure	154,509	155,613	(1,104)	10.12	(109)
1115D-04	Spillway Superstructure Original construction	1,524	1,535	(11)	2.07	(5)
1115D-05	Spillway Superstructure Subsequent modifications	1,111,649	1,209,455	(97,805)	22.49	(4,349)
1115E-01	Water Control Support	1,450,699	1,950,596	(499,897)	34.48	(14,497)
1115E-02	Water Control Support Additions for Sustainment	447,888	595,518	(147,630)	21.06	(7,009)
1115F-01	Roads, Grounds and Physical Site Security	454,055	518,580	(64,524)	34.27	(1,883)
1115G-01	Turbine and Generator Structural and Embedments	990,410	1,163,169	(172,759)	38.46	(4,492)
1115G-02	Turbine Runner - Fixed Blade	6,241,047	7,329,683	(1,088,636)	41.47	(26,253)
1115G-04	Turbine Regulation	2,559,186	3,005,589	(446,403)	33.55	(13,305)
1115G-05	Turbine Stationary Parts	1,184,474	1,391,084	(206,610)	38.58	(5,355)
1115G-06	Generator Frames and Core	734,643	862,788	(128,145)	11.91	(10,762)
1115G-07	Generator Rotor	457,993	537,882	(79,889)	24.26	(3,293)
1115G-08	Generator Windings	2,975,413	3,494,420	(519,006)	41.66	(12,458)
1115P-01	Generating Station Electrical Systems - High Voltage	2,338,263	2,692,146	(353,883)	35.50	(9,967)
1115P-02	Generating Station Electrical Systems - Low Voltage	2,078,970	2,405,278	(326,308)	15.56	(20,977)
1115Q-02	Analog Instrumentation, Control and Protection	260,442	311,192	(50,750)	33.74	(1,504)
1115Q-03	Digital Instrumentation, Control and Protection	7,298,718	8,527,145	(1,228,428)	14.20	(86,506)
1115Q-04	Backup Power Systems	589,038	681,165	(92,127)	19.06	(4,834)

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1115Q-05	Cyber and Intelligence Security	402,618	489,029	(86,411)	6.63	(13,039)	
1115R-01	Mechanical Auxiliary Systems	2,542,365	3,279,675	(737,310)	40.69	(18,121)	
1115R-02	Pressure systems	873,585	1,039,025	(165,440)	33.70	(4,909)	
1115R-03	Tools and test equipment	520,495	543,491	(22,996)	1.80	(7,665)	Note 1
	SEVEN SISTERS TOTAL	**62,181,827**	**70,078,351**	**(7,896,525)**		**(314,233)**	
SLAVE FALLS							
1120A-01	Concrete Dams, Dykes and Substructures	4,613,650	4,455,034	158,616	52.11	3,044	
1120A-02	Embankment Dams and Dykes	1,514,990	1,464,355	50,635	52.11	972	
1120B-01	Superstructures & Support Bldg - Very Long	133,695	132,438	1,257	51.47	24	
1120B-02	Superstructures & Support Bldg - Long	3,324	2,044	1,280	48.71	26	
1120B-03	Superstructures & Support Bldg - Medium-Long	667,568	725,727	(58,159)	40.22	(1,446)	
1120B-04	Superstructures & Support Bldg - Medium	1,055,807	1,104,046	(48,239)	24.37	(1,979)	
1120B-05	Superstructures & Support Bldg - Medium-Short	649,752	572,835	76,918	18.27	4,210	
1120B-06	Superstructures & Support Bldg - Short	35,004	55,364	(20,360)	10.45	(1,948)	
1120D-01	Spillway Substructure	157,905	107,056	50,849	52.13	975	
1120D-02	Spillway Refurbishment	2,939,536	2,195,001	744,535	38.62	19,280	
1120D-03	Spillway Additions for Sustainment	520,498	352,887	167,612	13.88	12,074	
1120D-04	Spillway Superstructure Original construction	88,455	63,827	24,628	50.61	487	
1120D-05	Spillway Superstructure Subsequent modifications	1,224,081	842,385	381,696	19.00	20,093	
1120E-01	Water Control Support	915,396	825,605	89,792	50.34	1,784	
1120F-01	Roads, Grounds and Physical Site Security	6,781,297	6,821,415	(40,117)	40.51	(990)	
1120G-01	Turbine and Generator Structural and Embedments	802,226	871,461	(69,235)	49.51	(1,398)	
1120G-02	Turbine Runner - Fixed Blade	504,252	547,771	(43,519)	44.78	(972)	
1120G-04	Turbine Regulation	288,775	313,697	(24,922)	38.32	(650)	
1120G-05	Turbine Stationary Parts	258,900	281,244	(22,344)	44.75	(499)	
1120G-06	Generator Frames and Core	425,004	461,683	(36,680)	33.47	(1,096)	
1120G-07	Generator Rotor	346,419	376,317	(29,897)	45.27	(660)	
1120G-08	Generator Windings	441,866	480,001	(38,135)	36.54	(1,044)	
1120P-01	Generating Station Electrical Systems - High Voltage	3,053,388	3,136,673	(83,285)	44.48	(1,873)	
1120P-02	Generating Station Electrical Systems - Low Voltage	1,918,035	1,932,471	(14,436)	31.48	(459)	
1120Q-01	Mechanical Instrumentation, Control and Protection	98,478	99,794	(1,316)	42.38	(31)	
1120Q-02	Analog Instrumentation, Control and Protection	19,360	11,904	7,457	32.64	228	
1120Q-03	Digital Instrumentation, Control and Protection	1,764,472	1,745,447	19,025	16.54	1,150	
1120Q-04	Backup Power Systems	680,024	622,707	57,318	12.75	4,495	
1120Q-05	Cyber and Intelligence Security	289,348	256,199	33,149	6.63	5,002	
1120R-01	Mechanical Auxiliary Systems	2,410,354	2,157,925	252,429	46.42	5,437	
1120R-02	Pressure systems	128,399	138,749	(10,350)	43.95	(235)	
1120R-03	Tools and test equipment	156,636	167,690	(11,054)	5.08	(2,175)	
	SLAVE FALLS TOTAL	**34,886,896**	**33,321,751**	**1,565,145**		**61,825**	
PINE FALLS							
1125A-01	Concrete Dams, Dykes and Substructures	2,645,767	2,606,744	39,024	55.65	701	
1125A-02	Embankment Dams and Dykes	2,037,456	1,491,686	545,770	55.65	9,806	
1125A-05	Concrete Dams, Dykes and Substructures Refurbishment	88,268	57,347	30,921	56.68	546	
1125A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	33,362	32,870	492	10.50	47	
1125A-10	Embankment Dams and Dykes Additions for Sustainment	2,745,398	1,783,668	961,730	10.43	92,215	
1125B-01	Superstructures & Support Bldg - Very Long	166,243	163,791	2,452	36.16	68	
1125B-02	Superstructures & Support Bldg - Long	1,288	1,237	51	48.65	1	
1125B-03	Superstructures & Support Bldg - Medium-Long	805,240	793,338	11,902	6.53	1,823	
1125B-04	Superstructures & Support Bldg - Medium	1,101,292	1,111,421	(10,129)	15.97	(634)	
1125B-05	Superstructures & Support Bldg - Medium-Short	461,815	468,263	(6,448)	2.71	(2,380)	
1125B-06	Superstructures & Support Bldg - Short	45,303	49,965	(4,663)	2.82	(1,656)	
1125D-01	Spillway Substructure	581,076	572,506	8,571	23.89	359	
1125D-04	Spillway Superstructure Original construction	338,330	333,340	4,990	8.16	612	
1125D-05	Spillway Superstructure Subsequent modifications	29,063	16,153	12,909	24.11	536	
1125E-01	Water Control Support	1,054,307	1,388,201	(333,893)	22.66	(14,735)	
1125E-02	Water Control Support Additions for Sustainment	379,543	664,286	(284,743)	22.44	(12,688)	
1125F-01	Roads, Grounds and Physical Site Security	1,164,974	1,502,044	(337,070)	24.64	(13,680)	
1125G-01	Turbine and Generator Structural and Embedments	1,214,223	1,331,026	(116,804)	62.88	(1,857)	
1125G-02	Turbine Runner - Fixed Blade	1,781,796	1,953,198	(171,402)	55.67	(3,079)	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1125G-04	Turbine Regulation	901,853	988,608	(86,755)	46.15	(1,880)	
1125G-05	Turbine Stationary Parts	828,654	908,367	(79,713)	54.17	(1,471)	
1125G-06	Generator Frames and Core	542,999	595,233	(52,235)	45.40	(1,151)	
1125G-07	Generator Rotor	777,972	852,810	(74,838)	55.83	(1,340)	
1125G-08	Generator Windings	1,296,417	1,421,127	(124,711)	42.61	(2,927)	
1125P-01	Generating Station Electrical Systems - High Voltage	639,386	664,639	(25,252)	56.81	(445)	
1125P-02	Generating Station Electrical Systems - Low Voltage	2,595,519	2,832,389	(236,871)	24.44	(9,691)	
1125Q-01	Mechanical Instrumentation, Control and Protection	38,403	32,879	5,523	50.51	109	
1125Q-02	Analog Instrumentation, Control and Protection	112,897	123,553	(10,656)	20.47	(521)	
1125Q-03	Digital Instrumentation, Control and Protection	2,095,800	2,422,739	(326,939)	16.33	(20,019)	
1125Q-04	Backup Power Systems	82,242	90,220	(7,978)	20.07	(397)	
1125Q-05	Cyber and Intelligence Security	175,186	217,472	(42,286)	8.50	(4,975)	
1125R-01	Mechanical Auxiliary Systems	1,343,592	1,583,709	(240,116)	48.41	(4,960)	
1125R-02	Pressure systems	177,246	175,885	1,361	44.22	31	
1125R-03	Tools and test equipment	313,752	316,239	(2,486)	0.61	(829)	Note 1
1125Z-01	Community Development Costs	2,841,650	3,145,443	(303,794)	73.96	(4,107)	
	PINE FALLS TOTAL	**31,438,310**	**32,692,398**	**(1,254,087)**		**1,430**	
MCARTHUR FALLS							
1130A-01	Concrete Dams, Dykes and Substructures	3,516,274	4,077,857	(561,583)	58.36	(9,622)	
1130A-02	Embankment Dams and Dykes	2,348,968	1,440,204	908,764	58.36	15,571	
1130A-06	Embankment Dams and Dykes Refurbishments	221,557	135,841	85,716	36.47	2,350	
1130A-10	Embankment Dams and Dykes Additions for Sustainment	3,685,511	2,259,668	1,425,843	10.44	136,602	
1130B-01	Superstructures & Support Bldg - Very Long	17,356	20,137	(2,781)	38.59	(72)	
1130B-03	Superstructures & Support Bldg - Medium-Long	149,177	172,470	(23,294)	23.89	(975)	
1130B-04	Superstructures & Support Bldg - Medium	234,512	249,535	(15,024)	26.21	(573)	
1130B-05	Superstructures & Support Bldg - Medium-Short	229,219	204,615	24,603	20.56	1,197	
1130B-06	Superstructures & Support Bldg - Short	37,213	37,056	157	6.08	26	
1130D-01	Spillway Substructure	1,161,520	1,120,326	41,195	26.49	1,555	
1130D-02	Spillway Refurbishment	2,912,954	3,266,046	(353,092)	26.43	(13,358)	
1130D-03	Spillway Additions for Sustainment	253,640	244,644	8,996	21.91	410	
1130D-04	Spillway Superstructure Original construction	606,611	585,097	21,514	9.81	2,194	
1130D-05	Spillway Superstructure Subsequent modifications	15,969	15,402	566	26.54	21	
1130E-01	Water Control Support	1,635,258	1,982,110	(346,852)	51.01	(6,799)	
1130E-02	Water Control Support Additions for Sustainment	162,415	196,864	(34,450)	13.56	(2,540)	
1130F-01	Roads, Grounds and Physical Site Security	200,307	222,995	(22,687)	41.43	(548)	
1130G-01	Turbine and Generator Structural and Embedments	871,732	1,435,775	(564,043)	37.09	(15,207)	
1130G-02	Turbine Runner - Fixed Blade	743,111	939,569	(196,457)	18.04	(10,890)	
1130G-04	Turbine Regulation	445,441	492,349	(46,907)	5.24	-	Note 2
1130G-05	Turbine Stationary Parts	401,441	469,977	(68,536)	9.33	-	Note 2
1130G-06	Generator Frames and Core	502,027	538,128	(36,101)	3.35	-	Note 2
1130G-07	Generator Rotor	455,781	538,128	(82,347)	9.95	-	Note 2
1130G-08	Generator Windings	497,080	538,128	(41,048)	3.97	-	Note 2
1130P-01	Generating Station Electrical Systems - High Voltage	489,697	592,050	(102,353)	23.29	(4,394)	
1130P-02	Generating Station Electrical Systems - Low Voltage	2,092,099	2,530,789	(438,690)	19.30	(22,731)	
1130Q-01	Mechanical Instrumentation, Control and Protection	977	1,104	(128)	10.14	(13)	
1130Q-02	Analog Instrumentation, Control and Protection	363,204	431,203	(67,999)	25.35	(2,682)	
1130Q-03	Digital Instrumentation, Control and Protection	1,237,243	1,313,815	(76,572)	9.13	(8,388)	
1130Q-04	Backup Power Systems	196,624	208,644	(12,020)	21.84	(550)	
1130Q-05	Cyber and Intelligence Security	260,592	255,774	4,818	7.34	657	
1130R-01	Mechanical Auxiliary Systems	777,973	908,762	(130,790)	47.01	(2,782)	
1130R-02	Pressure systems	62,909	71,412	(8,503)	52.08	(163)	
1130R-03	Tools and test equipment	96,573	96,573	-	-	-	
	MCARTHUR FALLS TOTAL	**26,882,965**	**27,593,050**	**(710,085)**		**58,295**	
KELSEY							
1135A-01	Concrete Dams, Dykes and Substructures	10,368,562	8,124,798	2,243,764	65.91	34,041	
1135A-02	Embankment Dams and Dykes	1,732,831	765,661	967,170	63.89	15,139	
1135A-05	Concrete Dams, Dykes and Substructures Refurbishment	5,782,139	4,530,321	1,251,818	65.44	19,130	
1135A-06	Embankment Dams and Dykes Refurbishments	137,354	78,673	58,681	14.87	3,945	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1135A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	84,455	48,374	36,081	16.63	2,169	
1135A-10	Embankment Dams and Dykes Additions for Sustainment	621,136	583,984	37,151	1.76	12,384	Note 1
1135B-01	Superstructures & Support Bldg - Very Long	165,515	129,697	35,818	44.93	797	
1135B-02	Superstructures & Support Bldg - Long	589,183	218,407	370,776	50.67	7,318	
1135B-03	Superstructures & Support Bldg - Medium-Long	1,769,579	1,222,865	546,714	32.26	16,945	
1135B-04	Superstructures & Support Bldg - Medium	2,246,693	1,652,522	594,171	16.28	36,487	
1135B-05	Superstructures & Support Bldg - Medium-Short	1,513,533	1,150,206	363,327	7.62	47,695	
1135B-06	Superstructures & Support Bldg - Short	782,113	796,663	(14,550)	2.17	(6,701)	
1135D-01	Spillway Substructure	773,752	505,780	267,972	31.94	8,390	
1135D-02	Spillway Refurbishment	1,087,359	622,811	464,548	24.56	18,915	
1135D-03	Spillway Additions for Sustainment	704,898	460,772	244,126	15.55	15,698	
1135D-04	Spillway Superstructure Original construction	3,317,797	2,168,750	1,149,046	13.80	83,260	
1135E-01	Water Control Support	2,238,699	1,741,978	496,721	26.32	18,872	
1135E-02	Water Control Support Additions for Sustainment	8,647,778	6,696,258	1,951,520	31.50	61,959	
1135F-01	Roads, Grounds and Physical Site Security	4,838,800	4,599,070	239,730	33.74	7,104	
1135G-01	Turbine and Generator Structural and Embedments	2,320,349	2,069,513	250,836	66.72	3,760	
1135G-02	Turbine Runner - Fixed Blade	8,432,067	7,520,537	911,530	56.56	16,117	
1135G-04	Turbine Regulation	3,375,214	3,009,456	365,758	46.69	7,833	
1135G-05	Turbine Stationary Parts	2,901,310	2,587,671	313,640	55.63	5,638	
1135G-06	Generator Frames and Core	1,453,046	1,295,968	157,078	40.61	3,868	
1135G-07	Generator Rotor	159,481	142,241	17,240	16.20	1,064	
1135G-08	Generator Windings	4,946,594	4,411,853	534,741	43.37	12,330	
1135P-01	Generating Station Electrical Systems - High Voltage	5,941,739	5,377,053	564,686	53.72	10,513	
1135P-02	Generating Station Electrical Systems - Low Voltage	718,355	678,355	40,000	28.25	1,416	
1135Q-01	Mechanical Instrumentation, Control and Protection	247,101	301,294	(54,193)	47.43	(1,143)	
1135Q-02	Analog Instrumentation, Control and Protection	3,424,595	3,792,348	(367,753)	38.11	(9,649)	
1135Q-03	Digital Instrumentation, Control and Protection	2,168,591	2,667,598	(499,007)	10.79	(46,245)	
1135Q-04	Backup Power Systems	134,390	172,031	(37,641)	14.93	(2,522)	
1135Q-05	Cyber and Intelligence Security	671,964	826,840	(154,876)	6.67	(23,234)	
1135R-01	Mechanical Auxiliary Systems	1,803,767	1,714,983	88,784	53.84	1,649	
1135R-02	Pressure systems	297,442	354,986	(57,543)	45.21	(1,273)	
1135R-03	Tools and test equipment	319,797	319,797	-	-	-	
	KELSEY TOTAL	**86,717,978**	**73,340,113**	**13,377,865**		**383,669**	
GRAND RAPIDS							
1140A-01	Concrete Dams, Dykes and Substructures	9,478,586	10,265,297	(786,711)	62.30	(12,627)	
1140A-02	Embankment Dams and Dykes	18,736,536	16,629,469	2,107,067	62.15	33,904	
1140A-03	Timber Dams and Dykes	239,557	212,617	26,940	1.67	16,124	
1140A-05	Concrete Dams, Dykes and Substructures Refurbishment	20,005	21,666	(1,660)	54.59	(30)	
1140A-06	Embankment Dams and Dykes Refurbishments	535,881	475,617	60,264	13.05	4,619	
1140A-10	Embankment Dams and Dykes Additions for Sustainment	7,798,426	6,921,433	876,993	8.05	108,970	
1140B-01	Superstructures & Support Bldg - Very Long	122,456	132,619	(10,164)	47.80	(213)	
1140B-02	Superstructures & Support Bldg - Long	829,598	645,375	184,223	47.21	3,902	
1140B-03	Superstructures & Support Bldg - Medium-Long	1,715,550	1,702,787	12,763	28.49	448	
1140B-04	Superstructures & Support Bldg - Medium	2,925,684	3,037,156	(111,472)	22.55	(4,943)	
1140B-05	Superstructures & Support Bldg - Medium-Short	2,604,495	2,509,264	95,230	15.04	6,333	
1140B-06	Superstructures & Support Bldg - Short	1,177,519	1,338,037	(160,518)	7.24	(22,181)	
1140D-01	Spillway Substructure	2,373,944	2,595,036	(221,093)	36.69	(6,027)	
1140D-02	Spillway Refurbishment	17,496	19,125	(1,629)	39.51	(41)	
1140D-04	Spillway Superstructure Original construction	923,416	1,009,417	(86,001)	20.31	(4,234)	
1140E-01	Water Control Support	7,531,824	11,648,288	(4,116,465)	30.35	(135,620)	
1140E-02	Water Control Support Additions for Sustainment	1,256,628	1,943,428	(686,801)	20.58	(33,378)	
1140F-01	Roads, Grounds and Physical Site Security	2,080,340	2,499,343	(419,003)	20.05	(20,900)	
1140G-01	Turbine and Generator Structural and Embedments	1,571,270	1,400,629	170,641	43.12	3,957	
1140G-03	Turbine Runner - Variable Blade	25,005,771	22,290,134	2,715,638	20.28	133,914	
1140G-04	Turbine Regulation	3,747,311	3,340,351	406,960	32.29	12,601	
1140G-05	Turbine Stationary Parts	3,258,582	2,904,699	353,883	40.98	8,636	
1140G-06	Generator Frames and Core	2,660,033	2,371,152	288,881	25.01	11,552	
1140G-07	Generator Rotor	2,117,835	1,887,837	229,998	39.13	5,878	
1140G-08	Generator Windings	7,719,445	6,881,110	838,335	31.73	26,422	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1140L-01	GS Licensing	11,748,519	12,057,452	(308,933)	42.56	(7,259)	
1140P-01	Generating Station Electrical Systems - High Voltage	3,192,141	3,118,723	73,418	54.36	1,351	
1140P-02	Generating Station Electrical Systems - Low Voltage	1,346,280	1,370,348	(24,068)	12.63	(1,906)	
1140Q-01	Mechanical Instrumentation, Control and Protection	50,100	46,454	3,646	48.69	75	
1140Q-02	Analog Instrumentation, Control and Protection	2,616,931	3,055,224	(438,292)	19.55	(22,421)	
1140Q-03	Digital Instrumentation, Control and Protection	5,343,366	5,258,891	84,475	15.39	5,488	
1140Q-04	Backup Power Systems	325,283	339,939	(14,656)	20.97	(699)	
1140Q-05	Cyber and Intelligence Security	1,161,968	1,384,599	(222,630)	4.60	(48,404)	
1140R-01	Mechanical Auxiliary Systems	2,634,584	2,914,438	(279,854)	50.37	(5,556)	
1140R-02	Pressure systems	1,099,618	993,941	105,678	34.71	3,045	
1140R-03	Tools and test equipment	319,184	337,906	(18,721)	4.83	(3,872)	
1140Z-01	Community Development Costs	26,646,964	33,852,515	(7,205,551)	68.93	(104,535)	
	GRAND RAPIDS TOTAL	**162,933,124**	**169,412,315**	**(6,479,191)**		**(47,629)**	
KETTLE							
1145A-01	Concrete Dams, Dykes and Substructures	47,957,221	48,412,745	(455,524)	74.63	(6,103)	
1145A-02	Embankment Dams and Dykes	14,277,761	16,493,981	(2,216,220)	74.63	(29,695)	
1145A-05	Concrete Dams, Dykes and Substructures Refurbishment	155,726	179,451	(23,725)	30.51	(778)	
1145A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	77,125	77,125	0	8.50	0	
1145A-10	Embankment Dams and Dykes Additions for Sustainment	672,339	672,339	-	0.61	-	
1145B-01	Superstructures & Support Bldg - Very Long	1,341,594	1,341,089	505	54.39	9	
1145B-02	Superstructures & Support Bldg - Long	76,499	40,347	36,152	66.95	540	
1145B-03	Superstructures & Support Bldg - Medium-Long	7,991,129	8,064,414	(73,286)	20.81	(3,522)	
1145B-04	Superstructures & Support Bldg - Medium	6,833,282	6,860,905	(27,624)	8.98	(3,075)	
1145B-05	Superstructures & Support Bldg - Medium-Short	5,638,024	5,637,420	603	6.30	96	
1145B-06	Superstructures & Support Bldg - Short	202,040	181,113	20,927	7.18	2,915	
1145D-01	Spillway Substructure	7,606,260	8,427,807	(821,547)	43.54	(18,871)	
1145D-04	Spillway Superstructure Original construction	4,157,040	4,606,039	(448,999)	23.91	(18,775)	
1145E-01	Water Control Support	9,701,583	14,812,329	(5,110,746)	35.18	(145,257)	
1145E-02	Water Control Support Additions for Sustainment	71,934	119,964	(48,030)	35.46	(1,354)	
1145F-01	Roads, Grounds and Physical Site Security	127,066	140,589	(13,523)	45.10	(300)	
1145G-01	Turbine and Generator Structural and Embedments	8,167,399	8,928,337	(760,938)	49.09	(15,501)	
1145G-02	Turbine Runner - Fixed Blade	6,435,288	7,034,849	(599,561)	22.07	(27,169)	
1145G-04	Turbine Regulation	4,036,143	4,464,049	(427,906)	26.27	(16,289)	
1145G-05	Turbine Stationary Parts	3,407,216	3,724,658	(317,442)	21.34	(14,877)	
1145G-06	Generator Frames and Core	6,440,769	7,040,841	(600,072)	42.50	(14,121)	
1145G-07	Generator Rotor	5,129,940	5,607,885	(477,945)	21.46	(22,273)	
1145G-08	Generator Windings	7,753,548	8,475,929	(722,380)	40.13	(18,000)	
1145P-01	Generating Station Electrical Systems - High Voltage	5,694,568	6,535,833	(841,265)	55.48	(15,164)	
1145P-02	Generating Station Electrical Systems - Low Voltage	2,949,316	3,666,015	(716,699)	17.34	(41,337)	
1145Q-02	Analog Instrumentation, Control and Protection	4,465,225	4,863,447	(398,222)	32.87	(12,115)	
1145Q-03	Digital Instrumentation, Control and Protection	8,389,415	9,901,662	(1,512,247)	14.11	(107,212)	
1145Q-04	Backup Power Systems	112,229	142,871	(30,642)	16.94	(1,809)	
1145Q-05	Cyber and Intelligence Security	879,597	1,114,943	(235,346)	6.52	(36,121)	
1145R-01	Mechanical Auxiliary Systems	8,333,873	11,376,515	(3,042,642)	50.02	(60,823)	
1145R-02	Pressure systems	183,301	229,589	(46,288)	48.80	(948)	
1145R-03	Tools and test equipment	514,970	526,692	(11,722)	2.54	(3,907)	Note 1
	KETTLE TOTAL	**179,779,422**	**199,701,773**	**(19,922,352)**		**(631,836)**	
LAURIE RIVER							
1150A-05	Concrete Dams, Dykes and Substructures Refurbishment	1,182,596	1,440,795	(258,198)	29.52	(8,747)	
1150A-06	Embankment Dams and Dykes Refurbishments	239,711	196,156	43,556	9.67	4,502	
1150B-02	Superstructures & Support Bldg - Long	48,892	45,472	3,421	29.32	117	
1150B-03	Superstructures & Support Bldg - Medium-Long	794,037	958,171	(164,135)	28.25	(5,810)	
1150B-04	Superstructures & Support Bldg - Medium	641,864	762,944	(121,080)	21.48	(5,637)	
1150B-05	Superstructures & Support Bldg - Medium-Short	390,997	462,831	(71,834)	12.21	(5,883)	
1150B-06	Superstructures & Support Bldg - Short	207,890	238,545	(30,655)	4.95	(6,197)	
1150D-02	Spillway Refurbishment	467,240	487,805	(20,565)	20.83	(987)	
1150E-01	Water Control Support	138,505	171,891	(33,385)	29.92	(1,116)	
1150E-02	Water Control Support Additions for Sustainment	168,646	180,244	(11,598)	19.03	(609)	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1150F-01	Roads, Grounds and Physical Site Security	701,809	809,622	(107,813)	24.38	(4,422)	
1150G-01	Turbine and Generator Structural and Embedments	116,819	161,624	(44,806)	29.48	(1,520)	
1150G-06	Generator Frames and Core	131,171	181,482	(50,311)	23.98	(2,098)	
1150G-07	Generator Rotor	118,701	164,229	(45,528)	28.60	(1,592)	
1150G-08	Generator Windings	955,464	1,321,933	(366,469)	29.63	(12,367)	
1150P-02	Generating Station Electrical Systems - Low Voltage	883,987	995,044	(111,057)	20.03	(5,545)	
1150Q-01	Mechanical Instrumentation, Control and Protection	34,207	45,614	(11,407)	26.59	(429)	
1150Q-02	Analog Instrumentation, Control and Protection	182,819	237,018	(54,199)	21.11	(2,567)	
1150Q-03	Digital Instrumentation, Control and Protection	396,499	472,577	(76,078)	13.39	(5,682)	
1150Q-04	Backup Power Systems	18,304	26,790	(8,486)	10.82	(785)	
1150R-01	Mechanical Auxiliary Systems	429,966	596,392	(166,426)	27.22	(6,113)	
	LAURIE RIVER TOTAL	**8,250,125**	**9,957,178**	**(1,707,054)**		**(73,486)**	
JENPEG							
1155A-01	Concrete Dams, Dykes and Substructures	27,505,514	30,237,971	(2,732,457)	80.11	(34,108)	
1155A-02	Embankment Dams and Dykes	1,985,831	2,193,504	(207,673)	85.96	(2,416)	
1155A-06	Embankment Dams and Dykes Refurbishments	148,608	159,755	(11,147)	35.51	(314)	
1155A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	29,997	30,127	(130)	1.50	(43)	Note 1
1155A-10	Embankment Dams and Dykes Additions for Sustainment	578,992	639,541	(60,549)	13.08	(4,631)	
1155B-01	Superstructures & Support Bldg - Very Long	50,981	58,857	(7,876)	59.10	(133)	
1155B-02	Superstructures & Support Bldg - Long	166,997	123,328	43,669	67.75	645	
1155B-03	Superstructures & Support Bldg - Medium-Long	763,401	692,669	70,733	43.62	1,622	
1155B-04	Superstructures & Support Bldg - Medium	3,100,006	2,526,697	573,308	21.74	26,366	
1155B-05	Superstructures & Support Bldg - Medium-Short	1,096,638	861,162	235,476	19.72	11,938	
1155B-06	Superstructures & Support Bldg - Short	459,209	397,322	61,886	9.99	6,197	
1155D-01	Spillway Substructure	6,880,290	8,469,589	(1,589,300)	48.51	(32,765)	
1155D-04	Spillway Superstructure Original construction	2,616,995	2,779,159	(162,164)	28.64	(5,662)	
1155D-05	Spillway Superstructure Subsequent modifications	27,372	34,759	(7,387)	21.65	(341)	
1155E-01	Water Control Support	5,808,179	9,342,391	(3,534,212)	44.35	(79,694)	
1155F-01	Roads, Grounds and Physical Site Security	1,280,236	1,466,839	(186,603)	36.20	(5,154)	
1155G-01	Turbine and Generator Structural and Embedments	8,206,456	8,578,706	(372,251)	53.18	(7,000)	
1155G-03	Turbine Runner - Variable Blade	8,755,495	9,152,650	(397,156)	9.92	(40,039)	
1155G-04	Turbine Regulation	3,695,364	3,863,013	(167,649)	40.10	(4,181)	
1155G-05	Turbine Stationary Parts	5,133,891	5,366,768	(232,877)	47.38	(4,915)	
1155G-06	Generator Frames and Core	7,635,574	7,981,929	(346,355)	14.22	(24,351)	
1155G-07	Generator Rotor	5,969,358	6,240,132	(270,774)	27.78	(9,747)	
1155G-08	Generator Windings	8,434,867	8,817,479	(382,612)	18.24	(20,973)	
1155P-01	Generating Station Electrical Systems - High Voltage	5,917,421	6,720,322	(802,901)	40.61	(19,770)	
1155P-02	Generating Station Electrical Systems - Low Voltage	8,281,469	9,409,692	(1,128,222)	15.20	(74,244)	
1155Q-01	Mechanical Instrumentation, Control and Protection	2,297	3,702	(1,405)	22.71	(62)	
1155Q-02	Analog Instrumentation, Control and Protection	1,149,290	1,318,391	(169,101)	27.99	(6,042)	
1155Q-03	Digital Instrumentation, Control and Protection	1,967,092	2,262,388	(295,296)	19.36	(15,255)	
1155Q-04	Backup Power Systems	20,634	24,368	(3,733)	8.25	(452)	
1155Q-05	Cyber and Intelligence Security	785,432	956,954	(171,522)	6.04	(28,390)	
1155R-01	Mechanical Auxiliary Systems	4,197,829	5,830,792	(1,632,963)	45.89	(35,585)	
1155R-02	Pressure systems	295,656	415,001	(119,345)	22.82	(5,230)	
1155R-03	Tools and test equipment	270,380	272,319	(1,939)	1.10	(646)	Note 1
	JENPEG TOTAL	**123,217,750**	**137,228,278**	**(14,010,528)**		**(415,378)**	
LAKE WINNIPEG REGULATION							
1160A-01	Concrete Dams, Dykes and Substructures	427,896	511,835	(83,939)	82.02	(1,023)	
1160A-02	Embankment Dams and Dykes	33,822,964	40,459,263	(6,636,299)	88.41	(75,065)	
1160F-01	Roads, Grounds and Physical Site Security	498,475	596,259	(97,784)	24.05	(4,065)	
1160L-01	GS Licensing	55,000	51,792	3,208	44.50	72	
1160Q-03	Digital Instrumentation, Control and Protection	6,827	6,827	-	1.67	-	
1160Z-01	Community Development Costs	110,721,636	117,241,609	(6,519,972)	66.19	(98,508)	
	LAKE WINNIPEG REGULATION TOTAL	**145,532,798**	**158,867,585**	**(13,334,787)**		**(178,589)**	
CHURCHILL RIVER DIVERSION							
1165A-01	Concrete Dams, Dykes and Substructures	21,401,433	29,455,302	(8,053,869)	83.69	(96,240)	
1165A-02	Embankment Dams and Dykes	33,598,931	30,989,882	2,609,049	82.02	31,810	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1165A-04	Weirs	11,732,272	10,821,228	911,043	29.59	30,789	
1165A-06	Embankment Dams and Dykes Refurbishments	57,017	52,590	4,428	14.87	298	
1165A-08	Weirs Refurbishment	766,104	706,614	59,490	9.58	6,209	
1165B-01	Superstructures & Support Bldg - Very Long	22,425	32,545	(10,120)	59.11	(171)	
1165B-02	Superstructures & Support Bldg - Long	2,060	1,694	366	69.96	5	
1165B-03	Superstructures & Support Bldg - Medium-Long	247,803	309,042	(61,240)	31.56	(1,940)	
1165B-04	Superstructures & Support Bldg - Medium	243,383	300,113	(56,730)	19.32	(2,936)	
1165B-05	Superstructures & Support Bldg - Medium-Short	132,118	134,332	(2,214)	4.90	(452)	
1165B-06	Superstructures & Support Bldg - Short	27,070	28,098	(1,028)	4.35	(236)	
1165D-01	Spillway Substructure	1,280,016	1,857,648	(577,633)	48.51	(11,908)	
1165D-04	Spillway Superstructure Original construction	287,294	451,680	(164,386)	29.99	(5,482)	
1165E-01	Water Control Support	6,425,952	10,149,745	(3,723,793)	41.69	(89,321)	
1165E-02	Water Control Support Additions for Sustainment	470,928	470,669	259	2.95	88	
1165F-01	Roads, Grounds and Physical Site Security	5,047,650	5,674,696	(627,045)	28.68	(21,867)	
1165P-02	Generating Station Electrical Systems - Low Voltage	1,289,325	1,237,825	51,500	9.09	5,665	
1165Q-01	Mechanical Instrumentation, Control and Protection	100,904	108,074	(7,170)	53.29	(135)	
1165Q-02	Analog Instrumentation, Control and Protection	1,204,455	1,675,998	(471,543)	28.25	(16,691)	
1165Q-03	Digital Instrumentation, Control and Protection	61,152	69,340	(8,188)	16.46	(498)	
1165Q-04	Backup Power Systems	9,895	10,260	(365)	10.78	(34)	
1165R-01	Mechanical Auxiliary Systems	2,673,820	4,043,586	(1,369,766)	30.91	(44,320)	
1165R-03	Tools and test equipment	119,662	119,662	-	0.00	-	
1165Z-01	Community Development Costs	93,513,822	102,425,613	(8,911,791)	68.60	(129,906)	
	CHURCHILL RIVER DIVERSION TOTAL	**180,715,492**	**201,126,238**	**(20,410,746)**		**(347,274)**	
LONG SPRUCE							
1170A-01	Concrete Dams, Dykes and Substructures	51,873,596	52,696,694	(823,098)	80.78	(10,190)	
1170A-02	Embankment Dams and Dykes	12,030,767	12,614,868	(584,100)	80.79	(7,230)	
1170A-06	Embankment Dams and Dykes Refurbishments	1,533,016	1,607,445	(74,429)	19.24	(3,868)	
1170A-09	Concrete Dams Dykes and Substructures Additions for Sustainment	33,754	34,071	(317)	25.50	(12)	
1170A-10	Embankment Dams and Dykes Additions for Sustainment	504,552	529,048	(24,496)	2.50	(8,165)	Note 1
1170B-01	Superstructures & Support Bldg - Very Long	513,825	518,646	(4,821)	60.04	(80)	
1170B-03	Superstructures & Support Bldg - Medium-Long	2,906,320	2,933,591	(27,271)	20.10	(1,357)	
1170B-04	Superstructures & Support Bldg - Medium	2,719,234	2,777,671	(58,437)	9.97	(5,861)	
1170B-05	Superstructures & Support Bldg - Medium-Short	2,982,944	3,005,265	(22,321)	9.99	(2,235)	
1170B-06	Superstructures & Support Bldg - Short	34,058	43,794	(9,736)	8.90	(1,093)	
1170D-01	Spillway Substructure	13,165,344	13,901,864	(736,521)	49.50	(14,878)	
1170D-04	Spillway Superstructure Original construction	7,218,846	7,622,696	(403,850)	29.61	(13,640)	
1170D-05	Spillway Superstructure Subsequent modifications	347,746	373,128	(25,382)	10.61	(2,393)	
1170E-02	Water Control Support Additions for Sustainment	16,983	24,719	(7,736)	23.74	(326)	
1170F-01	Roads, Grounds and Physical Site Security	1,035,539	1,210,359	(174,820)	38.33	(4,561)	
1170G-01	Turbine and Generator Structural and Embedments	16,729,793	18,969,443	(2,239,650)	53.95	(41,515)	
1170G-02	Turbine Runner - Fixed Blade	12,263,936	13,905,732	(1,641,797)	26.92	(60,989)	
1170G-04	Turbine Regulation	7,394,718	8,384,663	(989,945)	17.73	(55,830)	
1170G-05	Turbine Stationary Parts	6,443,448	7,306,044	(862,597)	25.60	(33,696)	
1170G-06	Generator Frames and Core	14,720,569	16,691,240	(1,970,671)	11.76	(167,599)	
1170G-07	Generator Rotor	11,466,638	13,001,699	(1,535,061)	26.27	(58,423)	
1170G-08	Generator Windings	15,554,281	17,636,563	(2,082,282)	15.64	(133,118)	
1170P-01	Generating Station Electrical Systems - High Voltage	13,376,218	16,991,367	(3,615,149)	27.96	(129,278)	
1170P-02	Generating Station Electrical Systems - Low Voltage	8,764,221	11,103,936	(2,339,715)	11.03	(212,099)	
1170Q-02	Analog Instrumentation, Control and Protection	262,722	328,823	(66,101)	42.60	(1,552)	
1170Q-03	Digital Instrumentation, Control and Protection	3,400,253	3,942,729	(542,476)	18.54	(29,253)	
1170Q-04	Backup Power Systems	166,681	193,400	(26,719)	16.60	(1,609)	
1170Q-05	Cyber and Intelligence Security	907,504	1,041,295	(133,791)	6.13	(21,830)	
1170R-01	Mechanical Auxiliary Systems	36,087,777	52,350,288	(16,262,511)	30.53	(532,599)	
1170R-02	Pressure systems	541,143	737,166	(196,023)	22.43	(8,740)	
1170R-03	Tools and test equipment	509,076	509,076	0	0.59	0	
	LONG SPRUCE TOTAL	**245,505,502**	**282,987,323**	**(37,481,821)**		**(1,564,019)**	
LIMESTONE							
1175A-01	Concrete Dams, Dykes and Substructures	107,287,694	111,839,294	(4,551,600)	93.43	(48,717)	
1175A-02	Embankment Dams and Dykes	2,643,140	2,864,935	(221,795)	93.43	(2,374)	

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Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1175A-10	Embankment Dams and Dykes Additions for Sustainment	62,365	67,598	(5,233)	2.50	(1,744)	Note 1
1175B-01	Superstructures & Support Bldg - Very Long	454,292	472,644	(18,352)	72.45	(253)	
1175B-02	Superstructures & Support Bldg - Long	580,354	440,347	140,007	51.52	2,717	
1175B-03	Superstructures & Support Bldg - Medium-Long	4,236,635	4,615,903	(379,268)	30.56	(12,409)	
1175B-04	Superstructures & Support Bldg - Medium	3,690,454	3,641,665	48,789	16.35	2,983	
1175B-05	Superstructures & Support Bldg - Medium-Short	3,348,444	3,311,717	36,727	10.31	3,562	
1175B-06	Superstructures & Support Bldg - Short	1,248,304	1,185,286	63,018	1.74	36,208	
1175D-01	Spillway Substructure	43,332,427	47,208,153	(3,875,725)	62.32	(62,189)	
1175D-03	Spillway Additions for Sustainment	80,858	88,076	(7,218)	13.16	(548)	
1175D-04	Spillway Superstructure Original construction	23,876,652	26,012,220	(2,135,568)	42.32	(50,459)	
1175D-05	Spillway Superstructure Subsequent modifications	161,292	175,718	(14,426)	31.51	(458)	
1175E-01	Water Control Support	36,168,452	58,065,128	(21,896,676)	52.59	(416,333)	
1175F-01	Roads, Grounds and Physical Site Security	8,747,569	9,864,909	(1,117,340)	25.59	(43,661)	
1175G-01	Turbine and Generator Structural and Embedments	34,041,722	38,227,340	(4,185,618)	65.27	(64,125)	
1175G-02	Turbine Runner - Fixed Blade	24,592,728	27,616,540	(3,023,812)	38.57	(78,392)	
1175G-04	Turbine Regulation	14,314,393	16,074,427	(1,760,034)	28.44	(61,887)	
1175G-05	Turbine Stationary Parts	12,912,476	14,500,137	(1,587,660)	37.46	(42,382)	
1175G-06	Generator Frames and Core	29,263,009	32,861,058	(3,598,049)	22.91	(157,022)	
1175G-07	Generator Rotor	23,242,856	26,100,694	(2,857,838)	38.85	(73,556)	
1175G-08	Generator Windings	29,452,867	33,074,260	(3,621,393)	25.49	(142,052)	
1175P-01	Generating Station Electrical Systems - High Voltage	46,623,523	59,167,416	(12,543,892)	37.37	(335,641)	
1175P-02	Generating Station Electrical Systems - Low Voltage	7,430,554	9,456,907	(2,026,353)	15.93	(127,221)	
1175Q-01	Mechanical Instrumentation, Control and Protection	864	640	223	53.58	4	
1175Q-02	Analog Instrumentation, Control and Protection	12,671,019	16,046,344	(3,375,325)	23.35	(144,557)	
1175Q-03	Digital Instrumentation, Control and Protection	15,431,784	13,927,081	1,504,703	13.99	107,535	
1175Q-04	Backup Power Systems	97,658	118,397	(20,739)	17.74	(1,169)	
1175Q-05	Cyber and Intelligence Security	1,173,844	1,464,706	(290,862)	5.78	(50,283)	
1175R-01	Mechanical Auxiliary Systems	14,562,687	20,747,103	(6,184,416)	40.74	(151,821)	
1175R-02	Pressure systems	626,783	803,636	(176,853)	27.96	(6,325)	
1175R-03	Tools and test equipment	2,465,541	2,465,541	-	0.15	-	
	LIMESTONE TOTAL	**504,823,239**	**582,505,819**	**(77,682,580)**		**(1,922,567)**	
WUSKWATIM							
1180A-01	Concrete Dams, Dykes and Substructures	368,826	232,139	136,687	114.58	1,193	
1180A-02	Embankment Dams and Dykes	48,740	46,284	2,457	114.83	21	
1180B-01	Superstructures & Support Bldg - Very Long	96,960	47,895	49,064	94.07	522	
1180B-02	Superstructures & Support Bldg - Long	22,975	15,114	7,860	68.61	115	
1180B-03	Superstructures & Support Bldg - Medium-Long	620,200	309,479	310,720	49.21	6,314	
1180B-04	Superstructures & Support Bldg - Medium	649,292	327,125	322,168	29.75	10,829	
1180B-05	Superstructures & Support Bldg - Medium-Short	409,421	208,239	201,183	19.26	10,445	
1180B-06	Superstructures & Support Bldg - Short	218,850	114,131	104,719	9.92	10,552	
1180D-01	Spillway Substructure	183,751	220,929	(37,179)	83.91	(443)	
1180D-04	Spillway Superstructure Original construction	75,550	97,331	(21,781)	63.87	(341)	
1180E-01	Water Control Support	175,820	203,444	(27,624)	73.74	(375)	
1180F-01	Roads, Grounds and Physical Site Security	343,833	398,006	(54,173)	43.70	(1,240)	
1180G-01	Turbine and Generator Structural and Embedments	26,240	30,290	(4,050)	86.32	(47)	
1180G-02	Turbine Runner - Fixed Blade	93,117	107,491	(14,374)	59.88	(240)	
1180G-04	Turbine Regulation	37,178	42,916	(5,739)	48.89	(117)	
1180G-05	Turbine Stationary Parts	42,048	48,539	(6,491)	57.89	(112)	
1180G-06	Generator Frames and Core	97,019	111,995	(14,976)	43.88	(341)	
1180G-07	Generator Rotor	92,757	107,075	(14,318)	58.89	(243)	
1180G-08	Generator Windings	53,910	62,232	(8,322)	45.88	(181)	
1180P-01	Generating Station Electrical Systems - High Voltage	165,693	204,464	(38,771)	56.69	(684)	
1180P-02	Generating Station Electrical Systems - Low Voltage	65,848	88,340	(22,492)	33.91	(663)	
1180Q-01	Mechanical Instrumentation, Control and Protection	737	671	66	49.01	1	
1180Q-02	Analog Instrumentation, Control and Protection	10,580	10,438	142	42.70	3	
1180Q-03	Digital Instrumentation, Control and Protection	150,449	188,017	(37,568)	19.11	(1,966)	
1180Q-04	Backup Power Systems	101,217	141,006	(39,789)	19.30	(2,062)	
1180Q-05	Cyber and Intelligence Security	32,281	41,003	(8,722)	4.35	(2,007)	
1180R-01	Mechanical Auxiliary Systems	310,794	471,638	(160,844)	57.02	(2,821)	

Manitoba Hydro Consolidated Electric Operations
IFRS-Compliant ASL - Accumulated Depreciation Variances
For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1180R-02	Pressure systems	24,243	38,033	(13,791)	48.20	(286)
1180Z-01	Community Development Costs	1,500,337	1,387,014	113,324	90.97	1,246
	WUSKWATIM TOTAL	**6,018,664**	**5,301,277**	**717,386**		**27,073**
INFRASTRUCTURE						
1199B-02	Superstructures & Support Bldg - Long	7,562,032	6,061,444	1,500,588	57.51	26,094
1199B-03	Superstructures & Support Bldg - Medium-Long	6,638,398	5,999,154	639,244	41.69	15,332
1199B-04	Superstructures & Support Bldg - Medium	13,633,953	13,048,764	585,189	24.75	23,649
1199B-05	Superstructures & Support Bldg - Medium-Short	14,130,749	13,431,068	699,682	14.13	49,517
1199B-06	Superstructures & Support Bldg - Short	7,893,917	8,043,379	(149,463)	8.10	(18,449)
1199F-01	Roads, Grounds and Physical Site Security	15,879,170	16,152,493	(273,323)	24.79	(11,024)
1199Y-01	Municipal Services	11,925,815	8,312,365	3,613,451	31.62	114,272
1199Z-01	Community Development Costs	173,223	695,234	(522,011)	80.53	(6,482)
	INFRASTRUCTURE TOTAL	**77,837,257**	**71,743,902**	**6,093,356**		**192,909**
	HYDRAULIC GENERATION TOTAL	**1,996,422,153**	**2,194,869,648**	**(198,447,495)**		**(5,278,208)**
THERMAL GENERATION						
BRANDON 6 AND 7						
1210B-02	Superstructures & Support Bldg - Long	4,158,281	6,025,554	(1,867,272)	42.73	(43,696)
1210B-03	Superstructures & Support Bldg - Medium-Long	2,907,754	4,524,363	(1,616,609)	36.83	(43,891)
1210B-04	Superstructures & Support Bldg - Medium	4,019,473	6,226,528	(2,207,055)	17.19	(128,416)
1210B-05	Superstructures & Support Bldg - Medium-Short	4,003,282	6,259,765	(2,256,483)	10.55	(213,858)
1210B-06	Superstructures & Support Bldg - Short	1,805,850	1,966,450	(160,600)	2.98	(53,860)
1210F-01	Roads, Grounds and Physical Site Security	1,366,888	2,700,884	(1,333,996)	33.53	(39,788)
1210G-06	Generator Frames and Core	5,688,890	11,560,821	(5,871,930)	33.50	(175,267)
1210G-07	Generator Rotor	5,442,324	11,059,755	(5,617,431)	48.59	(115,617)
1210G-08	Generator Windings	3,247,873	6,600,245	(3,352,373)	35.50	(94,426)
1210K-01	Combustion Turbine	32,286,053	65,642,973	(33,356,920)	24.76	(1,347,177)
1210P-01	Generating Station Electrical Systems - High Voltage	5,031,360	8,000,989	(2,969,629)	43.71	(67,939)
1210P-02	Generating Station Electrical Systems - Low Voltage	2,766,791	3,911,309	(1,144,518)	21.00	(54,496)
1210Q-02	Analog Instrumentation, Control and Protection	1,955,350	2,416,418	(461,068)	9.42	(48,971)
1210Q-03	Digital Instrumentation, Control and Protection	1,989,359	3,625,426	(1,636,067)	13.93	(117,414)
1210Q-04	Backup Power Systems	6,520	6,520	-	5.45	-
1210Q-05	Cyber and Intelligence Security	508,234	1,622,892	(1,114,658)	7.19	(154,998)
1210R-01	Mechanical Auxiliary Systems	10,604,570	22,755,326	(12,150,757)	44.54	(272,776)
1210R-02	Pressure systems	163,408	332,073	(168,665)	37.62	(4,483)
1210R-03	Tools and test equipment	2,308,558	2,308,558	-	2.54	-
	BRANDON 6 AND 7 TOTAL	**90,260,818**	**167,546,850**	**(77,286,032)**		**(2,977,073)**
DIESEL GENERATION						
1300B-02	Diesel Generation Buildings - Long	1,044,268	1,697,339	(653,071)	20.17	(32,375)
1300B-03	Diesel Generation Buildings - Medium-Long	648,166	1,000,535	(352,369)	20.17	(17,468)
1300B-04	Diesel Generation Buildings - Medium	1,125,403	2,337,381	(1,211,978)	24.59	(49,291)
1300B-05	Diesel Generation Buildings - Medium-Short	847,964	1,067,302	(219,338)	9.71	(22,586)
1300B-06	Diesel Generation Buildings - Short	731,011	752,240	(21,228)	3.27	(6,488)
1300Q-01	Diesel Accessory Station Equipment - Electrical & Mechanical	4,337,015	8,250,722	(3,913,707)	17.14	(228,336)
1300Q-02	Diesel Accessory Station Equipment - Fire & Control Systems	2,873,263	5,466,085	(2,592,822)	16.17	(160,367)
1300Q-03	Diesel Accessory Station Equipment - Heat Recovery Systems	286,967	545,924	(258,958)	11.83	(21,882)
1300N	Engines and Generators	8,128,619	16,545,182	(8,416,563)	18.55	(453,725)
1300T	Fuel Storage and Handling	3,384,918	4,654,451	(1,269,533)	18.14	(69,981)
	DIESEL GENERATION TOTAL	**23,407,595**	**42,317,161**	**(18,909,566)**		**(1,062,499)**
TRANSMISSION LINES						
2000F	Road, Trails, and Bridges	2,179,286	2,735,132	(555,845)	45.57	(12,196)
2000G	Metal Towers and Concrete Poles	145,350,590	158,418,675	(13,068,086)	77.61	(168,389)
2000J-01	Wood Poles and Fixtures	33,060,551	38,696,015	(5,635,464)	38.06	(148,049)
2000J-02	Wood Cross Arms and Spar Arms	13,809,733	16,163,724	(2,353,991)	31.89	(73,817)
2000K	Ground Line Treatment	1,222,824	1,311,008	(88,184)	7.36	(11,980)
2000L-01	Overhead Conductor and Devices	111,164,312	147,351,658	(36,187,346)	73.06	(495,326)
2000L-02	Spacer Dampers	19,717,589	26,136,261	(6,418,672)	15.09	(425,488)
2000M	Underground Cable and Devices	1,898,649	2,010,146	(111,497)	44.91	(2,483)
2000Z	Transmission Development Fund	1,905,615	2,273,636	(368,021)	77.44	(4,753)
	TRANSMISSION LINES TOTAL	**330,309,149**	**395,096,255**	**(64,787,105)**		**(1,342,480)**
SUBSTATIONS						

Manitoba Hydro Consolidated Electric Operations
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For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
3000B-02	Substation Buildings - Long	21,283,117	18,953,859	2,329,257	69.10	33,707
3000B-03	Substation Buildings - Medium-Long	8,357,567	7,567,557	790,010	49.39	15,995
3000B-04	Substation Buildings - Medium	29,702,502	27,379,108	2,323,394	30.17	77,006
3000B-05	Substation Buildings - Medium-Short	30,791,134	29,077,743	1,713,391	19.51	87,836
3000B-06	Substation Buildings - Short	8,550,023	8,611,229	(61,206)	12.49	(4,899)
3000F-01	Roads, Steel Structures and Civil Site Work	159,147,474	202,905,274	(43,757,800)	48.56	(901,189)
3000F-02	Ground Grid	11,948,771	15,234,101	(3,285,330)	24.12	(136,232)
3000J	Poles and Fixtures	2,695,298	3,240,692	(545,394)	31.45	(17,342)
3100R-01	AC Power & Grounding Transformers	125,884,018	129,171,249	(3,287,231)	40.91	(80,351)
3100R-02	AC Bushings	24,114,174	24,871,186	(757,012)	20.57	(36,803)
3100S-01	AC Other Transformers, Reactors & Regulators	44,098,471	48,452,641	(4,354,170)	34.91	(124,720)
3100S-02	AC Capacitor Banks	11,845,270	16,281,054	(4,435,784)	15.48	(286,594)
3100T-01	AC Breakers - Air, SF6 & Vacuum	68,019,230	68,899,517	(880,287)	34.22	(25,726)
3100T-02	AC Breakers - Oil	12,121,899	11,849,982	271,917	22.44	12,118
3100T-03	AC Switchgear, Circuit Switchers, & Reclosers	16,164,178	15,801,585	362,593	33.47	10,833
3100U-01	AC Bus, Cable, Hardware & Other Equipment	120,958,825	174,220,620	(53,261,796)	38.73	(1,375,319)
3100U-02	AC Disconnects, Insulators & Power Fuses	38,720,056	55,769,657	(17,049,601)	37.84	(450,543)
3100U-03	AC Arresters	12,102,907	17,432,180	(5,329,273)	27.52	(193,666)
3100V-01	AC Protection & Control - Electromechanical & Solid State	41,136,117	51,630,365	(10,494,248)	13.15	(798,046)
3100V-02	AC Protection & Control - Digital & Computer	62,491,343	78,433,529	(15,942,186)	19.57	(814,579)
3100V-03	AC Battery Banks & Chargers	14,388,874	18,059,624	(3,670,750)	12.71	(288,754)
3200M-01	HVDC Synchronous Condensers	36,510,562	39,945,021	(3,434,459)	53.79	(63,844)
3200M-02	HVDC Synchronous Condensers - Portion Subject to Overhaul	29,146,393	44,790,308	(15,643,915)	14.15	(1,105,815)
3200M-03	HVDC Synch Excitation and Unit Transformers	16,742,922	18,317,888	(1,574,966)	44.71	(35,226)
3200P-01	HVDC Converter Transformers	100,101,390	165,055,086	(64,953,697)	34.52	(1,881,495)
3200P-02	HVDC Converter Equipment - Other	134,097,663	222,047,824	(87,950,161)	21.17	(4,153,579)
3200S-01	HVDC AC Filters & Measuring Devices	53,302,180	86,129,180	(32,827,000)	17.66	(1,858,826)
3200S-02	HVDC DC Filters	21,975,626	35,993,602	(14,017,976)	10.25	(1,367,582)
3200S-03	HVDC Wall & Transformer Bushings	11,119,655	18,211,066	(7,091,411)	20.26	(350,036)
3200U-01	HVDC Bus, Cable, Hardware & Other Equipment	30,678,258	46,814,871	(16,136,613)	38.89	(414,948)
3200U-02	HVDC Disconnects & Arresters	17,462,095	26,352,791	(8,890,696)	33.04	(269,124)
3200V-01	HVDC Protection & Control - Electromechanical & Solid State	25,279,479	29,943,092	(4,663,613)	9.23	(505,507)
3200V-02	HVDC Protection & Control - Digital & Computer	11,021,059	24,051,382	(13,030,323)	22.83	(570,756)
3200V-03	HVDC Battery Banks & Chargers	3,846,596	5,763,331	(1,916,735)	15.44	(124,112)
3300M-01	Brandon Synchronous Condenser	1,166,697	1,745,950	(579,253)	22.08	(26,236)
3300M-02	Brandon Synchronous Condenser - Portion Subject to Overhaul	3,091,098	5,507,705	(2,416,606)	8.86	(272,634)
3300M-03	Brandon Synch - Unit Transformer	70,368	130,987	(60,619)	44.05	(1,376)
3300U-01	Brandon Synch - Bus, Cable, Hardware & Other Equipment	1,286,860	2,654,778	(1,367,918)	26.91	(50,832)
3300V-01	Brandon Synch - Protection & Control - Electromechanical & Solid State	2,115,652	2,947,724	(832,072)	11.85	(70,225)
3300V-02	Brandon Synch - Protection & Control - Digital & Computer	2,055,026	2,865,680	(810,654)	8.35	(97,048)
	SUBSTATIONS TOTAL	**1,365,590,827**	**1,803,111,020**	**(437,520,193)**		**(18,516,468)**
DISTRIBUTION LINES						
4001A	Group 1 - Concrete Ductline - MH Constr	1,886,395	3,299,293	(1,412,899)	69.74	(20,259)
4002A	Group 2 - Concrete Ductline - WH Acq	14,998,216	16,035,195	(1,036,979)	25.71	(40,328)
4000A	Concrete Ductline	16,884,610	19,334,488	(2,449,878)		(60,588)
4001B	Group 1 - Concrete Manholes - MH Constr	3,457,152	4,193,958	(736,807)	65.24	(11,294)
4002B	Group 2 - Concrete Manholes - WH Acq	5,772,923	5,436,188	336,735	25.71	13,096
4000B	Concrete Manholes	9,230,075	9,630,147	(400,072)		1,802
4000D	Concrete Manhole Refurbishment	1,702,259	1,640,658	61,601	24.76	2,488
4000G	Metal Towers	2,272,333	2,642,623	(370,290)	48.77	(7,593)
4000J	Poles and Fixtures	166,161,702	334,376,687	(168,214,986)	48.41	(3,474,484)
4000K	Ground Line Treatment	18,278,020	23,005,862	(4,727,843)	9.59	(492,898)
4000L-01	Overhead Conductor and Devices - Conductor	170,534,317	247,498,033	(76,963,716)	50.23	(1,532,113)
4000L-02	Overhead Conductor and Devices - Insulators	54,733,690	79,435,511	(24,701,821)	23.79	(1,038,188)
4000L-03	Overhead Conductor and Devices - Ground Rod Replacement Program	7,504,475	10,891,315	(3,386,839)	6.59	(514,301)
4000N-01	Underground Cable and Devices - PILC, HPPT & LPOF	1,578,616	1,762,708	(184,092)	57.77	(3,186)
4000N-02	Underground Cable and Devices - XLPE, RINJ & RIPVCJ	120,244,274	143,906,308	(23,662,034)	27.31	(866,513)
4000N-03	Underground Cable and Devices - TRXLPE	75,764,734	84,970,824	(9,206,090)	46.28	(198,908)

Manitoba Hydro Consolidated Electric Operations
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For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
4000Q-01	Serialized Equipment - Pole Mount - Transformers & Other	56,060,903	72,290,690	(16,229,787)	38.68	(419,571)	
4000Q-02	Serialized Equipment - Pole Mount - Reclosers	20,599,563	26,563,193	(5,963,631)	7.10	(839,885)	
4000S	Serialized Equipment - Pad Mount	74,999,921	97,417,189	(22,417,268)	32.05	(699,422)	
4000T	Underground Cable Injection	1,333,259	1,580,176	(246,918)	36.48	(6,769)	
4000V	Electronic Equipment	1,326,064	999,036	327,028	4.40	74,262	
4000W	Services	34,467,535	64,422,902	(29,955,366)	20.57	(1,456,319)	
4000X	Street Lighting	64,178,633	82,922,539	(18,743,906)	35.44	(528,926)	
	DISTRIBUTION LINES TOTAL	**897,854,984**	**1,305,290,889**	**(407,435,905)**		**(12,061,113)**	
DISTRIBUTION METERS							
4900V	Meters - Electronic	8,818,909	8,837,847	(18,938)	9.13	(2,074)	
4900W	Metering Exchanges	21,140,484	20,909,435	231,049	8.21	28,131	
4900Y	Meters Analog	8,478,447	10,101,290	(1,622,844)	9.68	(167,668)	
4900Z	Metering Transformers	3,826,669	4,785,353	(958,684)	34.76	(27,584)	
	DISTRIBUTION METERS TOTAL	**42,264,509**	**44,633,926**	**(2,369,418)**		**(169,195)**	
COMMUNICATION							
5000B-01	Communication Buildings - Very Long	912,934	598,710	314,224	79.58	3,949	
5000B-02	Communication Buildings - Long	927,238	885,912	41,325	56.42	732	
5000B-03	Communication Buildings - Medium-Long	1,314,053	1,001,866	312,187	37.66	8,290	
5000B-04	Communication Buildings - Medium	3,087,628	2,787,184	300,444	23.22	12,940	
5000B-05	Communication Buildings - Medium-Short	3,334,318	3,203,099	131,218	13.82	9,495	
5000B-06	Communication Buildings - Short	2,269,635	1,998,768	270,867	6.29	43,062	
5000G-01	Communication Towers - Structure	3,795,008	3,927,757	(132,748)	51.55	(2,575)	
5000G-02	Communication Towers - Lighting	561,898	581,553	(19,655)	23.13	(850)	
5000G-03	Communication Towers - Cathodic Protection	265,461	274,746	(9,286)	12.37	(751)	
5000H	Fibre Optic and Metallic Cable	46,418,699	51,061,337	(4,642,638)	31.05	(149,516)	
5000J-01	Communication - Battery Banks, Chargers & UPS	9,720,410	11,746,505	(2,026,095)	13.40	(151,257)	
5000J-02	Communication - Backup Diesel Generators	2,502,512	3,024,128	(521,617)	22.57	(23,109)	
5000J-03	Communication - MW, Optical, Span Line & HVI Carrier Equipment	46,591,926	56,303,417	(9,711,491)	11.88	(817,243)	
5000J-04	Communication - Powerline Carrier Electronic Equipment	2,271,522	2,744,992	(473,470)	12.87	(36,774)	
5000J-05	Communication - VHF Network Equipment	2,952,393	3,567,781	(615,388)	10.94	(56,227)	
5000K-01	Communication - Operational Technology Electronic Displays	2,307,194	2,759,593	(452,399)	1.05	(150,800)	Note 1
5000K-02	Communication - Operational Technology Servers & Storage	2,239,181	2,678,244	(439,063)	4.44	(98,905)	
5000M-01	Communication - VHF Mobile & Handheld Radios	4,240,801	6,250,077	(2,009,276)	4.65	(432,190)	
5000M-02	Communication - Telephones & Video Conferencing	1,381,724	2,033,075	(651,350)	11.15	(58,422)	
5000N	Operational Data Network	11,932,181	11,292,888	639,293	3.87	165,163	
5000R-02	Communication - Power System Control - Digital	609,147	924,643	(315,495)	5.80	(54,432)	
5000R-03	Communication - Station Control & Monitoring - Analog/Mechanical	214,308	201,120	13,189	1.99	6,630	
5000R-04	Communication - Station Control & Monitoring - Digital	3,684,261	5,716,634	(2,032,373)	14.82	(137,130)	
	COMMUNICATION TOTAL	**153,534,431**	**175,564,029**	**(22,029,598)**		**(1,919,921)**	
MOTOR VEHICLES							
6000E	Passenger Vehicles	539,595	508,597	30,998	3.80	8,158	
6000F	Light Trucks	31,619,881	32,921,169	(1,301,288)	5.79	(224,733)	
6000G	Heavy Trucks	34,661,632	33,006,966	1,654,666	9.98	165,715	
6000H	Construction Equipment	7,766,288	9,658,652	(1,892,364)	13.62	(138,972)	
6000I	Large Soft-Track Equipment	5,240,440	6,039,464	(799,025)	17.45	(45,802)	
6000J	Trailers	6,274,479	5,838,901	435,578	20.96	20,779	
6000K	Miscellaneous Vehicles	2,547,974	3,156,310	(608,337)	5.70	(106,716)	
	MOTOR VEHICLES TOTAL	**88,650,289**	**91,130,060**	**(2,479,771)**		**(321,571)**	
BUILDINGS							
8000B-01	Admin Building - Very Long	6,252,663	3,371,293	2,881,370	89.52	32,188	
8000B-02	Admin Building - Long	10,419,520	7,070,913	3,348,607	58.55	57,191	
8000B-03	Admin Building - Medium Long	20,773,685	14,019,226	6,754,460	43.70	154,548	
8000B-04	Admin Building - Medium	41,018,459	28,515,870	12,502,590	25.33	493,561	
8000B-05	Admin Building - Medium Short	33,519,610	29,301,375	4,218,235	15.16	278,269	
8000B-06	Admin Building - Short	20,191,807	18,086,072	2,105,735	7.04	299,189	
8000F	Leasehold Improvements-Sony Place	36,837	36,557	279	3.62	77	
	BUILDINGS TOTAL	**132,212,582**	**100,401,306**	**31,811,276**		**1,315,025**	

Manitoba Hydro Consolidated Electric Operations
IFRS-Compliant ASL - Accumulated Depreciation Variances
For Electric Plant in Service as at March 31, 2019

Acct No	Account Description	Appendix 9.11 Theoretical Reserve (Alliance)	Appendix 9.11 Allocated Book Reserve (Alliance)	Accumulated Depreciation Variance	Appendix 9.11 Remaining Life (Alliance)	Accumulated Depreciation True-up Portion of Alliance Annual Accrual Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
GENERAL EQUIPMENT							
9000H-01	General Plant - Tools, Shop & Garage Equipment - Electronic	37,603,708	28,847,479	8,756,229	3.32	2,634,698	
9000H-02	General Plant - Tools, Shop & Garage Equipment - Non-Electronic	18,022,751	13,826,055	4,196,696	8.10	518,138	
9000K-01	General Plant - Computer Equipment - PC's & Peripherals	14,435,626	15,471,922	(1,036,297)	2.04	(345,432)	Note 1
9000K-02	General Plant - Computer Equipment - Servers & Storage	6,105,105	6,543,375	(438,270)	4.56	(96,084)	
9000L	Office Furniture & Equipment	13,866,744	14,352,631	(485,887)	10.29	(47,221)	
9000M	Hot Water Tanks	807	802	5	1.50	2	Note 1
	GENERAL EQUIPMENT TOTAL	**90,034,741**	**79,042,264**	**10,992,477**		**2,664,099**	
	PROPERTY, PLANT AND EQUIPMENT TOTAL	**5,210,542,076**	**6,399,003,406**	**(1,188,461,329)**		**(39,669,403)**	
EASEMENTS							
A100A	Easements	19,986,161	20,004,919	(18,757)	65.44	(287)	
	EASEMENTS TOTAL	**19,986,161**	**20,004,919**	**(18,757)**		**(287)**	
COMPUTER SOFTWARE AND DEVELOPMENT							
A200G-01	Major Computer Systems - SAP	32,891,981	52,648,855	(19,756,874)	8.59	(2,298,690)	
A200G-02	Major Computer Systems - Banner	12,410,019	18,408,096	(5,998,078)	8.46	(709,109)	
A200G-03	Major Computer Systems - eGIS	17,967,843	22,792,815	(4,824,972)	2.50	(1,927,837)	
A200G-04	Major Computer Systems - MWM	11,366,815	16,860,686	(5,493,871)	4.00	(1,372,632)	
A200H-01	Computer Systems and Software - Long (9 - 12 Years)	4,567,709	3,124,043	1,443,666	3.45	419,008	
A200H-02	Computer Systems and Software - Medium (6-8 Years)	17,318,086	10,423,014	6,895,072	3.29	2,092,785	
A200J-01	Computer Systems and Software - Short (3-5 Years)	17,837,364	14,485,741	3,351,623	0.86	1,117,208	Note 1
A200K	Operational Technology Systems and Software	3,578,139	4,462,593	(884,454)	1.88	(294,818)	Note 1
A200L	Energy Management System Applications - EMS/SCADA	9,210,762	12,370,980	(3,160,219)	2.20	(1,436,997)	
	COMPUTER SOFTWARE AND DEVELOPMENT TOTAL	**127,148,719**	**155,576,824**	**(28,428,105)**		**(4,411,083)**	
	INTANGIBLE ASSETS TOTAL	**147,134,880**	**175,581,743**	**(28,446,863)**		**(4,411,370)**	
	MANITOBA HYDRO TOTAL	**5,357,676,956**	**6,574,585,149**	**(1,216,908,192)**		**(44,080,772)**	

Note 1 Amortized accounts with RL < 3 Years use a 3 Year Amortization Period to recover reserve difference.

Note 2 Surviving Investment is fully depreciated.