Consolidated Financial Statements of

EPCOR UTILITIES INC.

Years ended December 31, 2021 and 2020

Management's responsibility for financial reporting

The preparation and presentation of the accompanying consolidated financial statements of EPCOR Utilities Inc. are the responsibility of management and the consolidated financial statements have been approved by the Board of Directors. In management's opinion, the consolidated financial statements have been prepared within reasonable limits of materiality in accordance with International Financial Reporting Standards. Management has exercised careful judgment where estimates were required, and these consolidated financial statements reflect all information available to February 17, 2022. Financial information presented elsewhere is consistent with that in the consolidated financial statements.

To discharge its responsibility for financial reporting, management maintains systems of internal controls designed to provide reasonable assurance that the Company's assets are safeguarded, that transactions are properly authorized and that relevant financial information is reliable, accurate and available on a timely basis. The internal control systems are monitored by management, and evaluated by an internal audit function that regularly reports its findings to management and the Audit Committee of the Board of Directors.

The consolidated financial statements have been audited by KPMG LLP, the Company's external auditors. The external auditors are responsible for auditing the consolidated financial statements and expressing their opinion on the fairness of the consolidated financial statements in accordance with International Financial Reporting Standards. The auditors' report outlines the scope of their audit and states their opinion.

The Board of Directors, through the Audit Committee, is responsible for ensuring management fulfills its responsibilities for financial reporting and internal controls. The Audit Committee, which is composed of independent directors, meets regularly with management, the internal auditors and the external auditors to satisfy itself that each group is discharging its responsibilities with respect to internal controls and financial reporting. The Audit Committee reviews the consolidated financial statements and management's discussion and analysis and recommends their approval to the Board of Directors. The external auditors have full and open access to the Audit Committee, with and without the presence of management. The Audit Committee is also responsible for reviewing and recommending the annual appointment of the external auditors and approving the annual external audit plan.

On behalf of management,

(signed) *"Stuart Lee"*
Stuart Lee
President and Chief Executive Officer

(signed) *"Tony Scozzafava"*
Tony Scozzafava
Senior Vice President and Chief Financial Officer

February 17, 2022

EPCOR UTILITIES INC.
Consolidated Financial Statements

Years ended December 31, 2021 and 2020

KPMG LLP
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INDEPENDENT AUDITORS' REPORT

To the Shareholder of EPCOR Utilities Inc.

Opinion

We have audited the consolidated financial statements of EPCOR Utilities Inc. (the Entity), which comprise:

- the consolidated statements of financial position as at December 31, 2021 and December 31, 2020
- the consolidated statements of comprehensive income for the years then ended
- the consolidated statements of changes in equity for the years then ended
- the consolidated statements of cash flows for the years then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2021 and December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. Other information comprises:

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in the Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, as issued by the IASB, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

The engagement partner on the audit resulting in this auditors' report is Zarina Bhambhani.

KPMG LLP

Chartered Professional Accountants

Edmonton, Canada
February 17, 2022

EPCOR UTILITIES INC.

Consolidated Statements of Comprehensive Income
(In millions of Canadian dollars)

Years ended December 31, 2021 and 2020

	2021	2020
Revenues (note 8)	$ 2,226	$ 1,987
Operating expenses:		
Energy purchases and system access fees	528	367
Other raw materials and operating charges	252	263
Staff costs and employee benefits expenses (note 9)	366	353
Depreciation and amortization (note 9)	377	351
Franchise fees and property taxes	141	127
Other administrative expenses	83	98
	1,747	1,559
Operating income	479	428
Gain on expropriation of the Bullhead City water utility systems (note 7)	89	-
Other income	7	1
Finance expenses (note 10)	(148)	(137)
Income before income taxes	427	292
Income tax expense (note 11)	(39)	(16)
Net income	388	276
Other comprehensive gain (loss):		
Item that will not be reclassified to net income:		
Re-measurements of net defined benefit plans[1]	9	(2)
Items that may subsequently be reclassified to net income:		
Foreign exchange gain on U.S. denominated debt designated as a hedge of net investment in foreign operations	2	7
Unrealized loss on derivative financial instruments designated as hedges of net investment in foreign operations (note 28)	(6)	-
Unrealized loss on foreign currency translation	(6)	(23)
	(10)	(16)
Other comprehensive loss	(1)	(18)
Comprehensive income	$ 387	$ 258

1 For the year ended December 31, 2021, net of income tax expense of $1 million (2020 – net of income tax recovery of $1 million).

The accompanying notes are an integral part of these consolidated financial statements

EPCOR UTILITIES INC.

Consolidated Statements of Financial Position
(In millions of Canadian dollars)

December 31, 2021 and 2020

	2021	2020
ASSETS		
Current assets:		
Cash (note 12)	$ 30	$ 8
Trade and other receivables (note 13)	582	488
Inventories	18	17
	630	513
Non-current assets:		
Other financial assets (note 14)	243	189
Deferred tax assets (note 15)	91	97
Property, plant and equipment (note 16)	11,725	10,913
Intangible assets and goodwill (note 17)	558	468
	12,617	11,667
TOTAL ASSETS	$ 13,247	$ 12,180
LIABILITIES AND EQUITY		
Current liabilities:		
Trade and other payables (note 18)	$ 506	$ 426
Loans and borrowings (note 19)	391	365
Deferred revenue (note 20)	78	83
Provisions (note 21)	47	33
Other liabilities (note 22)	43	49
	1,065	956
Non-current liabilities:		
Loans and borrowings (note 19)	3,638	3,207
Deferred revenue (note 20)	4,109	3,909
Deferred tax liabilities (note 15)	74	43
Provisions (note 21)	174	109
Other liabilities (note 22)	180	165
	8,175	7,433
Total liabilities	9,240	8,389
Equity:		
Share capital (note 23)	798	798
Accumulated other comprehensive income	32	33
Retained earnings	3,177	2,960
Total equity	4,007	3,791
TOTAL LIABILITIES AND EQUITY	$ 13,247	$ 12,180

Commitments, contingencies and guarantees (note 30)

Approved on behalf of the Board,

(signed) *"Janice G. Rennie"*
Janice G. Rennie
Director and Chair of the Board

(signed) *"Vito Culmone"*
Vito Culmone
Director and Chair of the Audit Committee

The accompanying notes are an integral part of these consolidated financial statements

EPCOR UTILITIES INC.

Consolidated Statements of Changes in Equity
(In millions of Canadian dollars)

Years ended December 31, 2021 and 2020

		Accumulated other comprehensive income (loss)				
	Share capital (note 23)	Cash flow hedges	Cumulative translation account	Employee benefits account	Retained earnings	Equity
Equity at December 31, 2019	$ 798	$ (9)	$ 79	$ (19)	$ 2,855	$ 3,704
Net income	-	-	-	-	276	276
Other comprehensive gain (loss):						
Re-measurements of net defined benefit plans	-	-	-	(2)	-	(2)
Foreign exchange gain on U.S. denominated debt designated as a hedge of net investment in foreign operations	-	-	7	-	-	7
Unrealized loss on foreign currency translation	-	-	(23)	-	-	(23)
Total comprehensive income (loss)	-	-	(16)	(2)	276	258
Dividends	-	-	-	-	(171)	(171)
Equity at December 31, 2020	798	(9)	63	(21)	2,960	3,791
Net income	-	-	-	-	388	388
Other comprehensive gain (loss):						
Re-measurements of net defined benefit plans	-	-	-	9	-	9
Foreign exchange gain on U.S. denominated debt designated as a hedge of net investment in foreign operations	-	-	2	-	-	2
Unrealized loss on derivative financial instruments designated as hedges of net investment in foreign operations	-	-	(6)	-	-	(6)
Unrealized loss on foreign currency translation	-	-	(6)	-	-	(6)
Total comprehensive income (loss)	-	-	(10)	9	388	387
Dividends	-	-	-	-	(171)	(171)
Equity at December 31, 2021	$ 798	$ (9)	$ 53	$ (12)	$ 3,177	$ 4,007

EPCOR UTILITIES INC.

Consolidated Statements of Cash Flows
(In millions of Canadian dollars)

Years ended December 31, 2021 and 2020

	2021	2020
Cash flows from (used in) operating activities:		
Net income	$ 388	$ 276
Reconciliation of net income to cash from (used in) operating activities:		
Interest paid	(137)	(129)
Finance expenses (note 10)	148	137
Gain on expropriation of the Bullhead City water utility systems (note 7)	(89)	-
Income taxes paid	(15)	(15)
Income tax expense (note 11)	39	16
Depreciation and amortization (note 9)	377	351
Changes in employee benefits provisions	(6)	8
Contributions received	108	131
Deferred revenue recognized (note 20)	(84)	(78)
Gain on settlement of contingent consideration (note 22)	(6)	-
Other	(11)	4
Net cash flows from operating activities before non-cash operating working capital changes	712	701
Changes in non-cash operating working capital (note 24)	12	(10)
Net cash flows from operating activities	724	691
Cash flows from (used in) investing activities:		
Acquisitions and construction of property, plant and equipment and intangible assets[1]	(909)	(924)
Business acquisitions, net of acquired cash (note 6)	(127)	(2)
Payment of outstanding consideration for Vista Ridge	-	(12)
Proceeds from expropriation of the Bullhead City water utility systems (note 7)	101	-
Proceeds on disposal of property, plant and equipment	9	7
Net advances on other financial assets	(47)	(65)
Payment of contingent consideration (note 22)	(3)	-
Payment of Drainage transition cost compensation to the City of Edmonton (note 22)	(9)	(14)
Changes in non-cash investing working capital (note 24)	20	(18)
Net cash flows used in investing activities	(965)	(1,028)
Cash flows from (used in) financing activities:		
Net issuance of short-term loans and borrowings (note 25)	101	133
Proceeds from issuance of long-term loans and borrowings (note 25)	564	400
Repayments of long-term loans and borrowings (note 25)	(209)	(33)
Debt issuance costs (note 25)	(4)	(3)
Net refunds to customers and developers (note 25)	(5)	(1)
Payments of lease liabilities, net of proceeds from finance lease receivable	(13)	(13)
Dividends paid	(171)	(171)
Net cash flows from financing activities	263	312
Increase (decrease) in cash	22	(25)
Cash, beginning of year	8	33
Cash, end of year	$ 30	$ 8

1 Interest payments of $13 million (2020 - $11 million) have been capitalized and included in acquisitions and construction of property, plant and equipment (PP&E) and intangible assets.

The accompanying notes are an integral part of these consolidated financial statements

1. Nature of operations

EPCOR Utilities Inc. (the Company or EPCOR) builds, owns and operates electrical, natural gas and water transmission and distribution networks, water and wastewater treatment facilities and sanitary and stormwater systems and infrastructure. The Company also provides electricity, natural gas and water products and services to residential and commercial customers.

The Company operates in Canada and the United States (U.S.) with its registered head office located at 2000, 10423 - 101 Street NW, Edmonton, Alberta, Canada, T5H 0E8.

The common shares of EPCOR are owned by The City of Edmonton (the City). The Company was established by Edmonton City Council under City Bylaw 11071.

2. Basis of presentation

(a) Statement of compliance

These consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and Interpretations issued by the International Financial Reporting Interpretations Committee (IFRIC), and effective on December 31, 2021 and 2020. These consolidated financial statements were approved and authorized for issue by the Board of Directors on February 17, 2022.

(b) Basis of measurement

The Company's consolidated financial statements are prepared on the historical cost basis, except for its derivative financial instruments, long-term investment and contingent consideration, which are measured at fair value.

3. Significant accounting policies

The accounting policies set out below have been applied consistently to all years presented in these consolidated financial statements unless otherwise indicated.

(a) Basis of consolidation

These consolidated financial statements include the accounts of EPCOR and its wholly owned subsidiaries at December 31, 2021 and 2020. Subsidiaries are entities controlled by the Company. Subsidiaries are fully consolidated from the date on which EPCOR obtains control, and continue to be consolidated until the date that such control ceases to exist. All intercompany balances and transactions have been eliminated on consolidation. The financial statements of the subsidiaries are prepared for the same reporting period as EPCOR, using consistent accounting policies.

These consolidated financial statements are presented in Canadian dollars. The functional currency of EPCOR and its Canadian subsidiaries is the Canadian dollar; the functional currency of U.S. subsidiaries is the U.S. dollar. All the values in these consolidated financial statements have been rounded to the nearest million except where otherwise stated.

(b) Changes in significant accounting policies

The Company has adopted amendments to various accounting standards effective January 1, 2021, which did not have a significant impact on these consolidated financial statements.

(c) Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The determination of whether or not an acquisition meets the definition of business combination under IFRS requires judgment and is assessed on a case-by-case basis. The consideration for an acquisition is measured at the fair value of the assets transferred, equity instruments issued and liabilities incurred at the date of acquisition in exchange for control of the acquired business. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are recognized in net income. Transaction costs that the Company incurs in connection with a business combination, other than those associated with the issue of debt or equity securities, are expensed as incurred.

Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair values at the date of acquisition. Any contingent consideration payable is measured at fair value at the date of acquisition with subsequent changes in the fair value typically recognized in net income.

Goodwill is measured as the excess of the fair value of the consideration transferred less the fair value of the identifiable assets acquired and liabilities assumed. Subsequently, goodwill is measured at cost less accumulated impairment losses, if any.

(d) Revenue recognition

The Company recognizes revenue when it transfers control over a promised good or service, a performance obligation under the contract, to a customer and where the Company is entitled to consideration resulting from completion of the performance obligation. Depending on the terms of the contract with the customer, revenue recognition can occur at a point in time or over time. When a performance obligation is satisfied, revenue is measured at the transaction price that is allocated to that performance obligation. For contracts where non-cash consideration is received, revenue is recognized and measured at the fair value of the non-cash consideration.

Customer contracts may include the transfer of multiple goods and services. Where the Company determines that the multiple goods and services are not distinct performance obligations, they are treated as a single performance obligation.

Contract costs for obtaining a customer contract are expensed as incurred unless they create an asset related to future contract activity that the Company expects to recover.

Significant judgment may be required to determine the number of distinct performance obligations within a contract and the allocation of transaction price to multiple performance obligations in a contract, and to determine whether the Company acts as a principal or agent for certain performance obligations. When multiple performance obligations are identified in a contract, the transaction price is allocated based on the stand-alone selling price of each performance obligation. If stand-alone selling price is not observable, the Company estimates the stand-alone selling price for each distinct performance obligation based on the related expected cost plus a margin. The Company is acting as a principal when the Company controls the goods or services before transfer to the customer. The Company is acting as an agent when it is obliged to arrange for the provision of the goods or services by another party, that are not controlled by the Company before transfer to the customer. When the Company acts as an agent, the revenue is recognized net of any related costs incurred.

The Company's principal sources of revenue and methods applied to the recognition of the revenues in these consolidated financial statements are as follows:

Energy and water sales

The contracts with customers for the supply of electricity, natural gas and water consist primarily of perpetual contracts that are effective until terminated by the customers or the Company. The Company provides a series of distinct goods, which are simultaneously received and consumed by the customers. Each of the performance obligations is satisfied over time using the output method for revenue recognition, i.e. the units of each good supplied to the customers.

Revenues are calculated based on the customers' usage of the goods during the period, at the applicable rates as per the terms of the respective contracts. Customers are generally billed on a monthly basis and payment is generally due within 30 days of billing the customer.

Provision of services

The contracts with customers for each of electricity and natural gas transmission and distribution services, sanitary and stormwater collection and wastewater treatment services consist primarily of perpetual contracts that are effective until terminated by the customers or the Company. The Company provides a series of distinct services, which are simultaneously received and consumed by the customers. Each of the performance obligations is satisfied over time using the output method for revenue recognition, i.e. quantifiable services rendered to the customers.

Revenues are calculated based on the services provided to the customers during the period, at the applicable rates as per the terms of the respective contracts. These revenues include an estimate of the value of services provided to the customers in the reporting period and billed subsequent to the reporting period. Customers are generally billed on a monthly basis and payment is generally due within 30 days of billing the customer.

Certain water services contracts include multiple services including operation, maintenance and renewal maintenance of utility infrastructure, each of which the Company typically constitutes distinct performance obligations. Each of the performance obligations in these contracts relates to the provision of a series of distinct services, which are simultaneously received and consumed by the customers. Performance obligations under these contracts are satisfied over time using both input and output methods, depending on the nature of each distinct performance obligation.

The Company has determined that it is acting as an agent related to collection of provincial transmission system access service charges and collection of distribution and transmission charges on behalf of the Alberta Electric System Operator (AESO) and distribution companies, respectively, as the Company does not obtain control of the respective services before they are transferred to the customers. Accordingly, revenues from collection of provincial transmission system access service charges and collection of distribution and transmission charges are recognized net of all related costs paid to the corresponding service providers.

Construction revenue

Revenue from the construction of utility infrastructure and other project upgrades and expansions provided to customers is recognized when control of the promised goods or services is transferred to the customer. Performance obligations under these contracts are satisfied over time using the input or output method for revenue recognition, depending on the contracts with customers.

Revenue from construction services includes the initial amount of the transaction price included in the contract plus any expected variable consideration, claims and incentive payments, to the extent it is probable that they will result in consideration receivable and can be reliably measured. Satisfaction of the performance obligation is estimated based on an assessment of progress towards its completion using the ratio of costs incurred to the total projected cost of fulfilling the performance obligation under a construction contract. These estimates may result in the recognition of unbilled receivables as a contract asset when revenues are earned prior to billing the amount to customers or recognition of a contract liability when consideration received under the contract exceeds the revenue recognized to date. When the satisfaction of the performance obligation cannot be measured reliably, contract revenue is recognized only to the extent of contract costs incurred that are probable to be recoverable, until such time the Company can reliably measure the outcome of the performance obligation.

Other commercial revenue

Other commercial revenue is comprised of revenues from the financing of project upgrades and expansions for customers and is recognized over the term of each contract using the effective interest method based on the fair value of the loan calculated at inception for each contract.

Other commercial revenue also includes revenues earned from arrangements where the Company leases utility infrastructure and other assets to customers, which are accounted for as finance leases.

(e) Income taxes

Under the Income Tax Act (Canada) (ITA), a municipally owned corporation is subject to income tax on its taxable income if the income from activities for any relevant period that was earned outside the geographical boundaries of the municipality exceeds 10% of the corporation’s total income for that period. As a result of these and other provisions, certain Canadian subsidiaries of the Company are taxable under the ITA and provincial income tax acts. The U.S. subsidiaries are subject to income taxes pursuant to U.S. federal and state income tax laws.

Current income taxes are measured at the amount expected to be recovered from or payable to the taxation authorities based on the tax rates that are enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities are recognized for the deferred tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted or substantively enacted rates of tax expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the date of enactment or substantive enactment. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries except where the Company is able to control the timing of the reversal of the temporary differences, and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets and liabilities are not recognized if the temporary difference results from the initial recognition of goodwill arising from a business combination or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither taxable income nor accounting income.

Current and deferred taxes are recognized in profit or loss except to the extent that they relate to items recognized directly in equity or in other comprehensive income.

(f) Cash and cash equivalents

Cash and cash equivalents include cash and short-term, highly liquid investments, with original maturities of three months or less on the date of purchase, that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

(g) Inventories

Small parts and other consumables, the majority of which are consumed by the Company in the provision of its goods and services to customers, are valued at the lower of cost and net realizable value. Cost includes the purchase price, transportation costs and other costs to bring the inventories to their present location and condition. The costs of inventory items that are interchangeable are determined on an average cost basis. For inventory items that are not interchangeable, cost is assigned using specific identification of their individual costs. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. Previous write-downs of inventories from cost to net realizable value can be fully or partially reversed if supported by economic circumstances. The Company estimates the value of inventory that is expected to be used in the construction of PP&E and reports this value as construction work in progress under PP&E.

(h) Leases

At the inception of a contract, the Company determines whether a contract is, or contains a lease. A contract is, or is considered to contain a lease, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

On initial identification of a lease contract, the Company recognizes a right-of-use (ROU) asset and a lease liability at the commencement of the lease contract. The lease liability is initially measured at the present value of the future unavoidable lease payments under the contract, discounted using the interest rate implicit in the lease contract. Where the implicit rate cannot be readily determined, the Company uses the incremental borrowing rate of the legal entity entering into the lease contract. Lease payments consist of fixed payments including in-substance fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, the exercise price of a purchase option or optional renewal period that the Company is reasonably certain to exercise and penalties for early termination of a lease contract unless the Company is reasonably certain not to terminate early. Subsequently, the lease liability is measured at amortized cost, using the effective interest method. The lease liability is re-measured to reflect any reassessments or lease modifications. Lease payments are allocated between the principal repayment of the lease liability and finance expense. The finance expense on the lease liability is charged to net income over the term of the lease contract to produce a constant periodic rate of interest on the remaining balance of the lease liability for each period.

The ROU asset is initially measured at cost which includes the initial lease liability, any lease payments made at or before commencement date less any lease incentives received, any initial direct costs and restoration costs. The ROU assets are depreciated on a straight-line basis over the shorter of the respective asset's useful life and the remaining term of the lease contract. The ROU assets are subsequently re-measured to reflect any reassessments or lease modifications. At each reporting date, ROU assets are reviewed for indications of impairment. If indications of impairment exist, the recoverable amount is estimated for the ROU assets, which is the greater of value in use and fair value the Company expects to recover from sub-lease of the asset.

The Company presents lease liabilities within other liabilities and ROU assets within PP&E in the consolidated statements of financial position.

The Company has elected not to recognize ROU assets and lease liabilities for lease contracts where the total term of the respective lease contract is less than or equal to 12 months or for low value lease contracts. The Company recognizes the payments relating to such leases (including principal and interest associated with these leases) as an expense on a straight-line basis over the lease term. These payments are presented within other administrative expense in net income.

As a lessor

On initial identification of a lease contract, the Company determines whether the contract is a finance lease or an operating lease. If a contract transfers substantially all of the risks and rewards incidental to ownership of the underlying asset to the customer, the contract is classified as a finance lease; otherwise, it is classified as an operating lease. Finance income related to contracts accounted for as finance leases is recognized in a manner that produces a constant rate of return on the net investment in the lease. The net investment in the lease is the aggregate of net minimum lease payments and unearned finance income discounted at the interest rate implicit in the lease. Unearned finance income is deferred and recognized in net income over the lease term. Lease payments received by the Company under operating leases are recognized as lease revenue within other commercial revenue on a straight-line basis over the lease term.

Where the Company is an intermediate lessor, it accounts for interests in the head lease and the sub-lease separately. If the sub-lease is classified as finance lease, the ROU asset relating to the head lease is de-recognized and a finance lease receivable in the sub-lease is recognized and presented within other financial assets in the consolidated statements of financial position.

The Company applies judgment in the determination of the lease term for certain lease contracts with renewal or termination options. The assessment of whether the Company is reasonably certain to exercise such options impacts the lease term, which could significantly affect the amount of lease liabilities and ROU assets recorded on the initial recognition or on modification of the lease contract.

(i) Property, plant and equipment

PP&E are recorded at cost, net of accumulated depreciation and accumulated impairment losses, if any.

Cost includes contracted services, materials, direct labor, directly attributable overhead costs, borrowing costs on qualifying assets and decommissioning costs. Where parts of an item of PP&E have different estimated useful lives, they are accounted for as separate items (major components) of PP&E.

The cost of major inspections and maintenance is recognized in the carrying amount of the item if the asset recognition criteria are satisfied. The carrying amount of a replaced part is de-recognized. The costs of day-to-day servicing are expensed as incurred. The cost of a group of PP&E acquired in a transaction, including those acquired in a business combination, is allocated to the individual assets acquired based on their fair value.

Depreciation of cost less residual value is charged on a straight-line basis over the estimated useful lives of items of each depreciable component of PP&E, from the date they are available for use, as this most closely reflects the expected usage of the assets. Land and construction work in progress are not depreciated. Estimating the appropriate useful lives of assets requires judgment and is generally based on estimates of life characteristics of similar assets. The estimated useful lives, methods of depreciation and residual values are reviewed annually with any changes adopted on a prospective basis.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The ranges of estimated useful lives for PP&E used are as follows:

Water treatment and distribution, and wastewater collection and treatment	2 - 95 years
Energy transmission and distribution	2 - 75 years
Retail systems and equipment	3 - 20 years
Corporate information systems and other	2 - 20 years
Right-of-use assets	1 - 25 years

Gains or losses on the disposal of PP&E are determined as the difference between the net disposal proceeds and the carrying value at the date of disposal.

(j) Capitalized borrowing costs

The Company capitalizes interest during construction of a qualifying asset using the weighted average cost of debt incurred on the Company's external borrowings or specific borrowings used to finance qualifying assets. Qualifying assets are considered those that take a substantial period of time to construct.

(k) Intangible assets

Intangible assets with finite lives are stated at cost, net of accumulated amortization and impairment losses, if any. The cost of a group of intangible assets acquired in a transaction, including those acquired in a business combination that meet the specified criteria for recognition apart from goodwill, is allocated to the individual assets acquired based on their fair value.

Customer rights represent the costs to acquire the rights to provide electricity services to particular customer groups for a finite period of time. Other rights represent the costs to acquire the rights, for finite periods of time, to access electricity delivery corridors, to the supply of water, to provide sewage treatment and transportation services, to withdraw groundwater, to provide operating and maintenance services for water infrastructure and to the supply of potable water for emergency and peak purposes. Customer and other rights are recorded at cost at the date of acquisition. Subsequent expenditures are capitalized only when it increases the future economic benefit in the specific asset to which it relates.

The cost of intangible software includes the cost of license acquisitions, contracted services, materials, direct labor, along with directly attributable overhead costs and borrowing costs on qualifying assets.

Amortization of the cost of finite life intangible assets is recognized on a straight-line basis over the estimated useful lives of the assets, from the date they are available for use, as this most closely reflects the expected usage of the asset. Work in progress is not amortized. The estimated useful lives and methods of amortization are reviewed annually with any changes adopted on a prospective basis.

The estimated useful lives for intangible assets with finite lives are as follows:

Customer rights[1]	8 - 20 years
Software	2 - 20 years
Other rights	12 - 75 years
Water rights	100 years

1 Customer rights with a useful life of 20 years expired on December 31, 2020, and were renegotiated and acquired for a useful life of eight years effective January 1, 2021.

Certificates of convenience and necessity (CCN) represent the costs to acquire the exclusive rights for the Company to serve within its specified geographic areas in the U.S. for an indefinite period of time. CCN are not amortized but are subject to review for indication of impairment at the end of each reporting period as described in note 3(s).

Gains or losses on the disposal of intangible assets are determined as the difference between the net disposal proceeds, if any, and the carrying amount at the date of disposal.

(l) Service concession arrangements

Service concession arrangements are contracts between the Company and government entities and can involve the design, build, finance, operation and maintenance of public infrastructure in which the government entity controls (i) the services provided by the Company and (ii) significant residual interest in the infrastructure. Service concession arrangements are classified in one of the following categories:

(i) Financial asset
The Company recognizes a financial asset arising from service concession arrangement when it has an unconditional right to receive a specified amount of cash or other financial asset over the life of the arrangement. The financial asset is measured at the fair value of consideration received or receivable. When the Company delivers more than one category of activities in a service concession arrangement, the consideration received or receivable is allocated by reference to the relative fair value of each activity, when amounts are separately identifiable.

(ii) Intangible asset
The Company recognizes an intangible asset arising from service concession arrangement when it has a right to charge for usage of the public infrastructure. The intangible asset, recognized as consideration for providing construction or upgrade services under a service concession arrangement, is measured at fair value upon initial recognition. Subsequent to initial recognition, the intangible asset is measured at cost less accumulated amortization and impairment losses, if any.

Revenue under the service concession arrangements is recognized as per the revenue recognition policy of the Company described in note 3(d) by reference to each activity when the amount of revenue is separately identifiable.

The accounting for contracts with government entities requires the application of judgment in determining if they fall within the scope of IFRIC 12 – *Service Concession Arrangements* (IFRIC 12). Additional judgment also needs to be exercised when determining, among other things, the classification and the effective interest rate to be applied to the service concession asset. Contracts falling under IFRIC 12 require the use of estimates over the term of the arrangement, and therefore any change in the long-term estimates could result in significant variation in the amounts recognized under service concession arrangements.

(m) Deferred revenue

Certain assets are contributed by customers or constructed using non-refundable cash contributions from customers. Non-refundable customer contributions, which are used to provide ongoing goods or services to these customers, are recorded as deferred revenue. Deferred revenue is initially recorded at the fair value of contributed assets, or the amount of cash contributions received, and is recognized as revenue on a straight-line basis over the shorter of estimated lives of the respective contracts with the customers or the estimated useful lives of the related assets. Where the contract with a customer is perpetual and the related contributed asset is used to provide ongoing goods or services to the customer, the life of the contract is equivalent to the estimated useful life of the asset to which the contribution relates.

Certain assets are acquired or constructed using non-refundable government grants. Government grants are recorded as deferred revenue and are recognized as revenue on a straight-line basis over the estimated useful lives of the assets to which they relate.

Certain assets are contributed / acquired or constructed using non-refundable cash contributions from developers or other unrelated entities. Currently there is no specific IFRS guidance on accounting for contributions received from developers or other unrelated entities. The Company has developed an accounting policy for the initial recognition of such contributions and subsequent recognition of the related revenues. These contributions are recorded as deferred revenue, at the fair value of the contributed assets or the amount of cash contribution received, and are recognized as revenue on a straight-line basis over the estimated useful lives of the assets to which the contribution relates.

(n) Provisions

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The increase in the provision due to the passage of time is recognized as a finance expense over the estimated period until settlement of the obligation. Significant judgment is required to determine whether a past event results in a liability that is recognized in the consolidated statements of financial position. In addition, quantifying such a provision also involves a certain amount of estimation in respect of the amount and timing of outflows of economic benefits and therefore it is possible that the assumptions used in measuring the provision may differ from future outcomes and the impact of such variations could be material.

The Company may receive contributions from customers, homebuilders, real estate developers, and other entities to fund construction necessary to extend service to new areas. Certain of these contributions may be refunded over a limited period of time as new customers begin to receive service or other contractual obligations are fulfilled. The portion of contributions that are estimated to be refunded in the future are recorded as provisions. The remaining contributions are classified as deferred revenue.

(o) Employee benefits

The employees of the Company are either members of the Local Authorities Pension Plan (LAPP) or other defined benefit or defined contribution pension plans.

The LAPP is a multi-employer defined benefit pension plan. The trustee and administrator of the plan is the LAPP Corporation and the plan is governed by a 12 member Board of Directors nominated by employees and employers. The LAPP is registered under the Alberta Employment Pension Plans Act. The Company and its employees contribute to the plan at rates prescribed by the LAPP Corporation to cover costs and an unfunded liability under the plan. The rates are based on a percentage of the pensionable salary. The most recent actuarial report of the plan discloses an actuarial excess. The LAPP is accounted for as a defined contribution plan as the LAPP is not able to provide information that reflects EPCOR's specific share of the defined benefit obligation or plan assets that would enable the Company to account for the plan as a defined benefit plan. Accordingly, the Company does not recognize its share of any plan surplus or deficit.

The Company maintains additional defined contribution and defined benefit pension plans to provide pension benefits to certain management employees and employees who are not otherwise served by the LAPP, including employees of new or acquired operations. Employees not otherwise served by the LAPP comprise less than 17% of total employees (2020 - 16%). The cumulative employee benefits account in other comprehensive income represents the cumulative impact of actuarial gains and losses, and return on plan assets excluding interest income from the Company’s defined benefit pension plans.

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability for short-term employee benefits is recognized for the amount expected to be paid if the Company has a legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

The Company recognizes the contribution payable to a defined contribution plan as an expense and a liability in the period during which the service is rendered.

(p) Derivative financial instruments and hedging activities

The Company uses various risk management techniques to reduce its exposure to movements in electricity prices, interest rates and foreign currency exchange rates. These include the use of derivative financial instruments such as forward contracts or contracts-for-differences, interest rate swaps, cross currency swaps and bond forward contracts. Such instruments may be used to establish a fixed price for electricity, fixed interest rates for borrowings or fixed foreign currency rates for anticipated transactions denominated in a foreign currency. Embedded derivatives are separated from the host contract and accounted for as a derivative if certain criteria are met.

The Company sells electricity to customers under a Regulated Rate Tariff (RRT). As part of the RRT, the quantity of electricity to be consumed, methods used to reduce the risk of adverse price movement for the expected electricity consumption and the electricity selling prices to be charged to these customers are determined by a regulatory approved Energy Price Setting Plan (EPSP). The Company manages its exposure to fluctuating wholesale electricity spot prices and consumption volumes by entering into financial electricity purchase contracts up to 120 days in advance of the month of consumption in order to reduce the risk of adverse price movements of electricity under a well-defined risk management process set out in the EPSP. Under these instruments, the Company agrees to exchange, with a counterparty meeting the Company's credit risk parameters, the difference between the AESO market price and the fixed contract price for a forecasted volume of electricity for the forward months, all in accordance with the EPSP. The Company may enter into additional financial electricity purchase contracts outside the EPSP to further mitigate the risk of adverse price movements of electricity.

Interest rates swaps and bond forward contracts are used by the Company to manage interest rate risks associated with long-term loans and borrowings and result in securing fixed interest rates over the term of the loans and borrowings against the floating interest rate.

Foreign exchange forward contracts and cross currency swaps may be used by the Company to manage foreign exchange exposures, consisting mainly of U.S. dollar exposures, resulting from anticipated transactions denominated in foreign currencies.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently measured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value of derivatives depends on whether the derivative instrument qualifies for hedge accounting and whether such instrument has been designated as a hedging instrument.

The Company may apply hedge accounting when there is a high degree of correlation between the risk in the item designated as being hedged (the hedged item) and the derivative financial instrument designated as a hedge (the hedging instrument). To apply hedge accounting, at the inception of hedging relationship, the Company formally documents relationships between hedged items and hedging instruments, including its risk management objectives together with the methods to be used to assess the effectiveness of the hedging relationships at each reporting date to ensure that the changes in fair values of the hedged items and the hedging instruments are moving in opposite directions and offsetting each other.

Derivative financial instruments may be designated as either fair value hedges, cash flow hedges or hedges of net investment in foreign operations. If the derivative financial instrument is designated as a fair value hedge, changes in the fair value of the derivative financial instrument and in the fair value of the underlying hedged item are recognized in net income. If the derivative financial instrument is designated as a cash flow hedge or a hedge of a net investment in foreign operation, the effective portions of the changes in the fair value of the derivative financial instrument are initially recorded in other comprehensive income and are subsequently recognized in net income when the underlying hedged item is realized. Ineffective portions of the changes in the fair value of cash flow hedges and hedges of net investment in foreign operations are recognized in net income immediately. Changes in the fair value of a derivative financial instrument designated as a fair value hedge, a cash flow hedge or a hedge of a net investment in foreign operations is recognized in the same line item in net income as the underlying hedged item.

Subsequent changes in the fair value of derivative financial instruments that are not designated as hedges, are recorded in net income. At initial recognition, transaction costs attributable to the derivative financial instruments are recognized in net income.

Fair value is determined based on exchange or over-the-counter price quotations by reference to bid or asking price, as appropriate, in active markets for similar instruments. Fair value amounts reflect management's best estimates using external readily observable market data, such as forward prices, interest rates and foreign exchange rates. It is possible that the assumptions used in establishing fair value amounts will differ from future outcomes and the impact of such variations could be material.

(q) Non-derivative financial instruments

Financial assets are identified and classified based on the business model used by the Company for managing those financial assets, as one of the following: at amortized cost, or at fair value through profit or loss. Financial liabilities are classified as measured at amortized cost or at fair value through profit or loss.

Financial assets and financial liabilities are presented on a net basis when the Company has a legally enforceable right to offset the recognized amounts and intends to settle on a net basis or to realize the asset and settle the liability simultaneously.

Recognition and measurement

At amortized cost

Cash and cash equivalents, other financial assets and trade and other receivables, except for derivative assets and long-term investment which are classified as financial assets measured at fair value through profit or loss, are classified as financial assets measured at amortized cost. These financial assets are initially recognized at fair value plus directly attributable transaction costs, if any. After initial recognition, they are measured at amortized cost when they are held for collection of cash flows, where those cash flows solely represent payments of principal and interest using the effective interest method less any impairment as described in note 3(r). The effective interest method calculates the amortized cost of a financial asset and allocates the finance income over the term of the financial asset using an effective interest rate. The effective interest rate is the rate that discounts estimated future cash receipts through the expected life of the financial asset, or a shorter period when appropriate, to the gross carrying amount of the financial asset.

Trade and other payables, loans and borrowings except debt issuance costs, refundable contributions from customers and developers classified within provisions, and other liabilities, except for contingent consideration and derivative liabilities, which are classified as financial liabilities measured at fair value through profit or loss, are classified as financial liabilities measured at amortized cost and are recognized on the date at which the Company becomes a party to the contractual arrangement. These financial liabilities are initially recognized at fair value including discounts and premiums, plus directly attributable transaction costs, such as issue expenses, if any. Subsequently, these liabilities are measured at amortized cost using the effective interest method.

At fair value through profit or loss

Financial instruments at fair value through profit or loss include instruments that are designated as financial instruments at fair value through profit or loss or those financial instruments that do not meet the criteria for classification under any other category.

Upon initial recognition, directly attributable transaction costs are recognized in net income as incurred. Changes in fair value of financial instruments measured at fair value through profit or loss are recognized in net income.

De-recognition

Financial assets are de-recognized when the rights to receive cash flows from the financial assets have expired or have been transferred, and the Company has transferred substantially all the risks and rewards of ownership.

Financial liabilities are de-recognized when the contractual obligations are discharged, cancelled or expire.

(r) Impairment of financial assets

The Company uses the “expected credit loss” (ECL) model for calculating impairment and recognizes ECL as a loss allowance for financial assets measured at amortized cost. At each reporting date, the Company measures the loss allowance for financial assets, except for trade receivables without a significant financing component, at an amount equal to the lifetime ECL if the credit risk on that financial asset has increased significantly since initial recognition. If it is determined that the credit risk on a financial asset has not increased significantly, the Company measures the loss allowance for that financial asset at an amount equal to the 12-month ECL.

For trade receivables without significant financing component, the Company applies the simplified approach and uses a provision matrix, based on the Company’s historical credit loss experience, current economic conditions and forward-looking information, to estimate and recognize the lifetime ECL. Trade and other receivables that are not assessed for impairment individually are assessed for impairment on a collective basis taking into consideration the unique risk factors associated with each customer group.

(s) Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. Non-financial assets include PP&E, intangible assets and goodwill. For PP&E and intangible assets with definite useful lives, the recoverable amount is estimated when an indication of impairment exists. For goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated at least once each year.

The recoverable amount of an asset or cash-generating unit (CGU) is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using an after-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are tested as CGU. CGUs are smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets. For the purposes of goodwill impairment testing, goodwill acquired in a business combination is allocated to the CGU, or the group of CGUs, that is expected to benefit from the synergies of the combination. This allocation is subject to an operating segment ceiling test and reflects the lowest level at which that goodwill is monitored for internal reporting purposes.

The Company's corporate assets do not generate separate cash inflows. If there is an indication that a corporate asset may be impaired, then the recoverable amount is determined for the CGU to which the corporate asset belongs.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in net income. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill and CCN allocated to the units, and then to reduce the carrying amounts of the other assets in the unit or the group of units on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other non-financial assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a fundamental change, since the date of impairment, which may improve the financial performance of the non-financial asset. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(t) Foreign currency transactions and translation

Foreign currency transactions

Transactions denominated in currencies other than the Canadian dollar are translated at exchange rates in effect at the transaction date. At each reporting date, monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate in effect at the end of the reporting period. Other non-monetary assets and liabilities are not retranslated unless they are carried at fair value. The resulting foreign exchange gains or losses are included in net income except for foreign exchange gains or losses on financial liabilities designated as hedges of a net investment in foreign operations, which are recorded in other comprehensive income. The cumulative deferred translation gains or losses related to hedges of a net investment in foreign operations are reclassified to net income at the earlier of de-recognition of a financial liability or on disposal of the foreign operations.

Foreign operations translation

On consolidation, the assets and liabilities of foreign operations that have a functional currency other than Canadian dollars are translated into Canadian dollars at the exchange rates in effect at the end of the reporting period. Revenues and expenses are translated at the average monthly exchange rates prevailing during the period. The resulting translation gains or losses are deferred and included in the cumulative translation account in accumulated other comprehensive income. The cumulative deferred translation gains or losses on the foreign operations are reclassified to net income, only on disposal of the foreign operations.

(u) Segment reporting

An operating segment is a component of the Company that engages in business activities from which it earns revenues and incurs expenses, including revenues and expenses that relate to transactions with any of the Company's other components. Transactions between segments are made under terms that approximate market value. The results for all operating segments, for which discrete financial information is available, are reviewed regularly by the Company's executive management to assess their performance and make decisions about resources to be allocated to the segment.

Segment results that are reported to management include items directly attributable to the segment as well as those that can be allocated on a reasonable and consistent basis. Unallocated items comprise mainly corporate assets, head office expenses and income tax assets and liabilities.

The Company uses judgment in identification and aggregation of business segments. The Company aggregates business segments when they offer similar products and services, have similar business processes, use similar methods to distribute the goods and services, have similar customer bases and operate under similar regulatory environments.

(v) Standards and interpretations not yet applied

A number of new standards, amendments to standards and interpretations of standards have been issued by the IASB and the IFRIC, the application of which is effective for periods beginning on or after January 1, 2022. The Company does not expect the implementation of these new accounting pronouncements to have a significant impact on its accounting policies.

4. Use of judgments and estimates

The preparation of the Company's consolidated financial statements in accordance with IFRS requires management to make judgments in the application of accounting policies, and estimates and assumptions that affect the reported amounts of income, expenses, assets and liabilities as well as the disclosure of contingent assets and liabilities at the date of the consolidated financial statements.

(a) Judgments

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements are included in notes:

Note 3(c) – Business combinations and goodwill
Note 3(d) – Revenue recognition
Note 3(h) – Leases
Note 3(i) – Property, plant and equipment
Note 3(l) – Service concession arrangements
Note 3(n) – Provisions

(b) Estimates

The Company reviews its estimates and assumptions on an ongoing basis, uses the most current information available and exercises careful judgment in making these estimates and assumptions. Adjustments to previous estimates, which may be material, are recorded in the period in which they become known. Actual results may differ from these estimates.

Assumptions and uncertainties that have a significant risk of resulting in a material adjustment within the next financial year include:

Revenues and energy purchases and system access fees

By regulation, electricity wire service providers in Alberta have four months to submit the final electricity load settlement data after the month in which such electricity was consumed. The data and associated processes and systems used by the Company to estimate electricity sales revenues and electricity purchase costs, including unbilled consumption, are complex. The Company's estimation procedures will not necessarily detect errors in underlying data provided by industry participants including wire service providers and load settlement agents.

Fair value measurement

Certain accounting measures such as determining asset impairments, purchase price allocations for business combinations, and recording certain financial and non-financial assets and liabilities, require the Company to estimate an item's fair value. Estimates of fair value may be based on readily determinable market values or on depreciable replacement cost or discounted cash flow techniques employing estimated future cash flows based on a number of assumptions and using an appropriate discount rate.

Deferred taxes

Significant estimation is required in determining the provision for income taxes. Recognition of deferred tax assets in respect of deductible temporary differences and unused tax losses and credits is based on management's estimation of future taxable profit against which the deductible temporary differences and unused tax losses and credits can be utilized. The actual utilization of these deductible temporary differences and unused tax losses and credits may vary materially from the amounts estimated.

5. Novel coronavirus

In March 2020, the global outbreak of the novel coronavirus (COVID-19) was declared a pandemic by the World Health Organization and it continues to disrupt business activities including supply chains around the world. In Canada and U.S. where the Company's operations are based, the local governments have regularly been monitoring and responding to the emerging situation with measures such as maintaining certain travel and business related restrictions. Since the beginning of the pandemic, the Company has been operating under its business continuity plan to ensure safety of its employees and customers. In view of the uncertainty caused by the continued persistence of virus infections, the Company has deferred its plans for re-integration of non-field / plant employees working from home, back to their permanent work locations. The Company is closely monitoring the situation (including advisories from the local governments), and planning to cautiously phase-in the reintegration of its employees back to their permanent work locations when considered safe to do so.

The Company has not experienced any significant impact of COVID-19 on its operations or financial results except for a decline in sales to commercial customers mainly due to business closures resulting from government imposed restrictions, which has largely been offset by an increase in sales to residential customers. Overall, the COVID-19 pandemic did not result in any material impact on the financial results of the Company for the years ended December 31, 2021 and 2020.

6. Business acquisitions

Acquisition of Johnson Utilities LLC operations

On January 29, 2021, the Company acquired the operations of Johnson Utilities LLC (JU), through its wholly owned U.S. subsidiary EPCOR Water Arizona Inc., for total consideration of $141 million (US$110 million) including cash consideration of $128 million (US$100 million) and a long-term unsecured promissory note of $13 million (US$10 million).

The operations acquired from JU include the water treatment and distribution and wastewater collection and treatment assets (collectively referred to as the San Tan operations), located southeast of the greater metropolitan Phoenix area. These operations provide services to approximately 30,000 water and 42,000 wastewater customers and hold a certificate of convenience and necessity that covers 160 square miles. The San Tan operations are regulated by the Arizona Corporation Commission.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The purchase price was allocated to the assets acquired and liabilities assumed based on their fair values on the date of acquisition, in Canadian dollars, as follows:

		2021
Fair value of net assets acquired:		
Cash	$	1
Trade and other receivables		11
Inventories		1
Other financial assets		2
Property, plant and equipment		216
Intangible assets and goodwill		98
Trade and other payables		(10)
Deferred revenue		(60)
Provisions		(84)
Other liabilities		(34)
Net assets at fair value	$	141
Consideration:		
Cash	$	128
Long-term unsecured promissory note		13
Total consideration	$	141

PP&E of $216 million (US$169 million) primarily represents water and wastewater infrastructure including pipelines and treatment facilities. PP&E also included construction work in progress of $12 million (US$9 million).

The intangible assets and goodwill of $98 (US$76 million) million represents the goodwill recognized on the acquisition of operations. The goodwill represents the expected customer connection growth, leverage benefit and the potential synergies from the Company’s expanded operations in Arizona. The goodwill is deductible for income tax purposes over time.

Deferred revenue of $60 million (US$47 million) represents the fair value of contributions received from customers and developers. Deferred revenue will be recognized as revenue over the corresponding life of the respective assets to which the contributions relate.

Provisions of $84 million (US$66 million) represents the fair value of advances in aid of construction (AIAC) from developers. The AIAC balances are refundable to the developers based on a percentage of revenues generated from the customers connected to assets for which AIAC was initially received.

Other liabilities primarily consists of a liability of $27 million (US$21 million) related to the settlement with the Arizona Department of Environmental Quality, requiring the Company to contribute 30 percent up to a maximum of US$21 million towards the construction of a new wastewater treatment plant, to be built, owned and operated by the Company.

The consideration in the form of a long-term unsecured promissory note of $13 million (US$10 million) carries an interest rate of 3% per annum. On January 30, 2021, an amount of $7 million (US$5 million) against the note was settled for the trade and other receivables which were due from the previous owner. As of December 31, 2021, the remaining principal balance of the long-term unsecured promissory note is $6 million (US$5 million) which is due in February 2024.

The transaction has been accounted for as a business combination using the acquisition method in conformance with IFRS 3 – Business Combinations, with the results of operations included in the consolidated financial statements from the date of acquisition.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

Since the date of acquisition to December 31, 2021, the financial performance of the San Tan operations is as follows:

		2021
Revenues	$	44
Operating expenses		(29)
Operating income	$	15

Management used assumptions and estimates about future events in the determination of fair values. The assumptions and estimates with respect to the determination of the fair value of PP&E and AIAC required the most judgment. Based on those assumptions and estimates the purchase price was allocated to the identified assets acquired and liabilities assumed with the residual amount attributed to goodwill. The fair values were estimated by applying standard valuation techniques and were based on significant inputs, which were not observable in the market. The key assumptions in the determination of fair value included the discount rate, future customer connection growth and customer rates including a future surcharge as approved by the regulator.

Brooke Utility Inc,

On August 20, 2020, EPCOR purchased the assets of Brooke Water LLC (Brooke) for cash consideration of $2 million. Brooke is located near the Town of Parker, near EPCOR's existing service area in Lake Havasu City, Arizona. Brooke is serving approximately 2,100 water customers.

The consideration of $2 million was allocated to PP&E based on the fair value of the assets acquired.

7. Expropriation of the Bullhead City water utility systems

On November 5, 2019, voters in Bullhead City (BHC), a US municipality where the Company owned and operated the Mohave and North Mohave water utility systems (water utility systems), passed Proposition 415, authorizing the local government to take steps to acquire the Company's water utility systems and operations using power of eminent domain. Power of eminent domain is the right of a government to expropriate private property for public use, with payment of fair and equitable compensation. The passage of Proposition 415 allowed BHC to pursue the purchase of the Company's water utility systems through a legal process and failing agreement between the parties, ultimately allow the courts to decide the purchase price. On March 27, 2020, BHC filed a suit seeking to expropriate and take an immediate possession of the water utility systems. On May 21, 2021, the judge in the suit ruled that BHC must post a bond for US$80 million in order to "Quick Take" possession of and begin operating the water utility systems as municipal utility systems and transferred the case to a jury trial for determination of the fair value of the water utility systems.

On September 1, 2021, the Company received the bond proceeds of $101 million (US$80 million) from BHC and transferred possession of the water utility systems to BHC in compliance with the court order. On January 19, 2022, BHC and the Company mutually agreed to an out of court settlement, at a fair value of the water utility systems of $126 million (US$100 million). The Company and the BHC mutually filed for the dismissal of the court case and the matter was closed by the court on January 28, 2022. Based on the final purchase price of the water utility systems, the Company has recognized a gain on expropriation of the BHC water utility systems of $89 million (US$71 million) after adjusting for legal expenses of $2 million related to expropriation proceedings.

The net book value of the BHC water utility systems upon transfer on September 1, 2021 was as follows:

		2021
Trade and other receivables	$	1
Inventories		1
Property, plant and equipment		53
Deferred revenue		(15)
Provisions		(5)
Net book value of the BHC water utility systems	$	35

The difference between the final consideration of $126 million and initial payment of $101 million has been recorded within trade and other receivables and was subsequently received on January 28, 2022.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The expropriation of the BHC water utility systems did not have a material impact on the operating income of the Company for the year ended December 31, 2021.

8. Revenues

Revenues disaggregated by major goods or services, excluding intersegment revenues, are as follows:

Year ended December 31, 2021	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Consolidated
Energy and water sales	$ 247	$ -	$ 553	$ 213	$ 49	$ 1,062
Provision of services	463	485	27	106	16	1,097
Construction revenue	9	-	-	6	45	60
Other commercial revenue	5	-	-	-	2	7
	$ 724	$ 485	$ 580	$ 325	$ 112	$ 2,226

Year ended December 31, 2020	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Consolidated
Energy and water sales	$ 232	$ -	$ 394	$ 208	$ 51	$ 885
Provision of services	432	480	21	78	13	1,024
Construction revenue	7	-	-	-	65	72
Other commercial revenue	5	-	-	-	1	6
	$ 676	$ 480	$ 415	$ 286	$ 130	$ 1,987

Revenues from contracts with customers expected to be recognized in future periods related to performance obligations that are unsatisfied or partially satisfied at December 31, 2021, are as follows:

	2022	2023	2024	2025	2026	2027 and thereafter	Total
U.S. operations water supply commercial contracts[1]	$ 8	$ 9	$ 9	$ 9	$ 9	$ 226	$ 270
Other – natural gas transportation contracts[2]	2	2	2	1	1	13	21
Contract liabilities - contributions received from customers, developers and government grants[3]	77	77	77	77	77	3,779	4,164
Total	$ 87	$ 88	$ 88	$ 87	$ 87	$ 4,018	$ 4,455

1 The Company has contracts for supply of water to a city and certain commercial customers in the state of Texas. Under these contracts, the customers have committed to take or pay for a contracted quantity of water. The remaining terms of these contracts range between 17 to 40 years.

2 The Company has contracts for transportation of natural gas to certain industrial customers in Ontario. Under the terms of these contracts, the customers pay committed fees for reserved capacity of the natural gas pipeline. The remaining terms of these contracts range between three to 15 years.

3 The Company has contract liabilities recorded as deferred revenue in the consolidated statements of financial position related to contributions received from customers, developers, other unrelated entities and government grants. Revenues will be recognized in future periods, as described in note 3(m), over periods ranging up to 95 years.

The Company has numerous contracts with customers for supply of each of electricity, natural gas and water as well as provision of sanitary and stormwater collection and wastewater treatment services. These contracts are perpetual with no agreed fixed term and can be terminated at any time by either the customer or the Company. Under the terms of the contracts, in case of termination of these contracts, the Company has the right to receive payment for the performance obligation satisfied to the termination date.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

9. Expenses

		2021		2020
Included in staff costs and employee benefits expenses				
Post-employment defined contribution plan expense	$	45	$	44
Post-employment defined benefit plan expense		5		6
Included in depreciation and amortization				
Depreciation of property, plant and equipment	$	340	$	321
Amortization of intangible assets		33		24
Loss on disposal of assets		4		6
	$	377	$	351

10. Finance expenses

		2021		2020
Interest on loans and borrowings	$	(153)	$	(142)
Interest on lease liabilities, net of interest on sub-lease		(3)		(3)
Unwinding of interest related to contingent consideration (note 22)		(2)		(3)
Unwinding of interest related to contributions from customers and developers (note 21)		(3)		-
Capitalized interest		13		11
	$	(148)	$	(137)

11. Income tax expense

		2021		2020
Current income tax expense	$	(3)	$	(22)
Deferred income tax recovery (expense)				
Relating to origination and reversal of temporary differences		(34)		6
Change in tax rates		-		(2)
Other		(2)		2
		(36)		6
	$	(39)	$	(16)

Income taxes differ from the amounts that would be computed by applying the federal and provincial income tax rates as follows:

		2021		2020
Income before income taxes	$	427	$	292
Income taxes at the statutory rate of 23% (2020 - 24%)		(98)		(70)
Decrease (increase) resulting from:				
Income exempt from income taxes at statutory rates		61		56
Change in tax rates on deferred taxes[1]		-		(2)
Effect of higher tax rate in the U.S.		(2)		-
	$	(39)	$	(16)

1 In December 2020, the Government of Alberta enacted Bill 35, which accelerated the reduction in provincial corporate tax rates from 10% to 8% effective July 1, 2020. The change resulted in a deferred tax expense of $2 million due to re-measurement of deferred tax assets and liabilities related to the Company's Alberta operations.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

12. Cash

Cash consists of cash on deposit with various financial institutions.

Restricted cash balances

Under the terms of the agreement between the Company and the Natural Gas Exchange (NGX) for the purchase of electricity price forward contracts, the Company established separate bank accounts through which the settlement of the electricity price forward contracts are processed in conjunction with letters of credit and cash as collateral. As security for the payment and performance of its obligations, the Company assigned a first ranking security interest on the balance of these accounts to the NGX. The Company's use of this cash is restricted to these purposes. At December 31, 2021, $18 million (2020 - $2 million) of the cash on deposit balance was held in these bank accounts.

13. Trade and other receivables

		2021		2020
Trade receivables	$	325	$	286
Accrued revenues		233		204
Gross accounts receivable		558		490
Expected credit loss allowance (note 28)		(12)		(17)
Net accounts receivable		546		473
Income tax recoverable		6		-
Prepaid expenses		21		9
		573		482
Current portion of other financial assets (note 14)		9		6
	$	582	$	488

Details of the aging of accounts receivable and analysis of the changes in the ECL allowance are provided in note 28.

14. Other financial assets

		2021		2020
Long-term receivables from service concession arrangements	$	75	$	77
Finance lease receivables		155		105
Long-term investment		6		7
Loans and other long-term receivables		16		6
		252		195
Less: current portion (included in trade and other receivables) (note 13)		9		6
	$	243	$	189

Service concession arrangements

The Company has executed service concession arrangements to design, build, upgrade, finance, operate and maintain, under public private partnerships, wastewater treatment facilities with the City of Regina and water and wastewater treatment facilities with Her Majesty the Queen in Right of Alberta for Kananaskis Village. The consideration under the service concession arrangements constitute rights to financial assets and have been recorded as long-term receivables. The significant terms of the arrangements are summarized below:

(a) City of Regina

EPCOR entered into an agreement with the City of Regina to operate and maintain an existing facility and design, build, finance, operate and maintain a new wastewater treatment facility under a public private partnership, for which the contract was signed in July 2014. In August 2014, EPCOR took over the operations of the existing wastewater treatment plant and the construction of the plant was completed in December 2017. The contract includes operation of both facilities for a term of 30 years. As of December 31, 2021, an amount of $73 million (2020 - $74 million) has been recorded as a financial asset which will be recovered along with financing revenue at the interest rate established in the arrangement over the remaining life of the arrangement.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

(b) Kananaskis Village

The Company won a bid to design, build, finance, upgrade, operate and maintain the water and wastewater treatment facilities in Kananaskis Village in October 2012. The arrangement includes operation of the facilities for a term of 10 years after completion of construction. The construction of the facility was completed in August 2014 following which the Company started operating and maintaining the facility. As of December 31, 2021, an amount of $2 million (2020 - $3 million) has been recognized as a financial asset which will be recovered along with financing revenue at the interest rate established in the arrangement over the remaining life of the arrangement.

Finance lease receivables

Approximate future payments to the Company under the finance lease receivables are as follows:

		2021		2020
Within one year	$	13	$	5
After one year but not more than five years		66		53
More than five years		209		128
Unearned finance income		(133)		(81)
	$	155	$	105

During the year ended December 31, 2021, the Company received lease rental payments of $3 million (2020 - $3 million).

The finance lease receivables primarily consist of the Company's sub-lease of a portion of its head office space and lease of electricity infrastructure. Details of the sub-lease of office space are provided in other liabilities (note 22).

Trans Mountain finance lease receivable

In 2020, the Company entered into an agreement to design, build, own, maintain and transfer the sub-station electricity infrastructure related to the Trans Mountain Pipeline expansion project. The construction of the electricity infrastructure was substantially complete in December 2021, and the maintenance period of 20 years commenced in December 2021.

The Company has recognized the investment of $100 million (2020 - $68 million) on the electricity infrastructure as a finance lease receivable, which will be recovered over the lease term of 20 years. Under the agreement, the Company will invest additional funds on various ancillary projects related to the lease in 2022, which will be added to the lease receivable. During the year, the Company has recognized construction revenue related to the construction of the electricity infrastructure of $31 million (2020 - $55 million).

Darlington finance lease receivable

In December 2021, the Company entered into an agreement to design, build, own, operate, maintain and transfer a demineralized water plant facility for the Darlington Nuclear Power Generating Stations. The construction of the water infrastructure is expected to be substantially complete in mid of 2023, with an operation and maintenance period of 30 years after completion of construction.

The Company has recognized the investment of $21 million on the water infrastructure as a finance lease receivable, which will be recovered over the term of 30 years after completion of construction. The Company has also recognized construction revenue related to the construction of the water infrastructure of $10 million (2020 - $11 million).

Long-term investment

Long-term investment represents the fair value of the Company's ownership of a 5% equity interest in Vista Ridge LLC (Vista Ridge) at December 31, 2021 and 2020. Vista Ridge owns a water pipeline in the central part of the state of Texas, which supplies water to the San Antonio Water System.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

15. Deferred tax assets / liabilities

Deferred tax assets are attributable to the following:

	2021	2020
Non-capital losses carried forward	$ 67	$ 72
Investment in partnerships	12	11
Canadian resource expenditures	7	7
Provisions	13	14
Deferred revenue	102	88
Other	11	13
Deferred tax assets	212	205
Set off by deferred tax liabilities	(121)	(108)
Net deferred tax assets	$ 91	$ 97

Deferred tax liabilities are attributable to the following:

	2021	2020
Other financial assets	$ 2	$ 1
Property, plant and equipment	157	122
Intangible assets and goodwill	36	28
Deferred tax liabilities	195	151
Set off by deferred tax assets	(121)	(108)
Net deferred tax liabilities	$ 74	$ 43

The changes in temporary differences during the years ended December 31, 2021 and 2020 were as follows:

	Balance, beginning of 2021	Recognized in net income	Recognized in other comprehensive income	Foreign currency valuation adjustment and other	Balance, end of 2021
Non-capital losses carried forward	$ 72	$ (5)	$ -	$ -	$ 67
Investment in partnerships	11	1	-	-	12
Canadian resource expenditures	7	-	-	-	7
Provisions	14	(1)	(1)	1	13
Deferred revenue	88	16	-	(2)	102
Other financial assets	(1)	(1)	-	-	(2)
Property, plant and equipment	(122)	(36)	-	1	(157)
Intangible assets and goodwill	(28)	(8)	-	-	(36)
Other	13	(2)	-	-	11
	$ 54	$ (36)	$ (1)	$ -	$ 17

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

	Balance, beginning of 2020	Recognized in net income	Recognized on business acquisition	Foreign currency valuation adjustment and other	Balance, end of 2020
Non-capital losses carried forward	$ 77	$ (5)	$ -	$ -	$ 72
Investment in partnerships	10	1	-	-	11
Canadian resource expenditures	7	-	-	-	7
Provisions	14	(1)	1	-	14
Deferred revenue	77	12	-	(1)	88
Other financial assets	(1)	-	-	-	(1)
Property, plant and equipment	(126)	2	-	2	(122)
Intangible assets and goodwill	(25)	(3)	-	-	(28)
Other	13	-	-	-	13
	$ 46	$ 6	$ 1	$ 1	$ 54

The Company also has taxable temporary differences of $369 million (2020 - $285 million), associated with investments in subsidiaries, for which no deferred tax liability has been recognized. In addition, no deferred tax liability has been recognized in respect of unremitted earnings of subsidiaries as the Company is in a position to control the timing of the reversal of temporary difference and it is probable that such differences will not be reversed in the foreseeable future.

The non-capital losses expire between the years 2031 and 2041.

The Company has recognized deferred tax assets in the amount of $91 million (2020 - $97 million), the utilization of which is dependent on future taxable profits in excess of the profits arising from the reversal of existing taxable temporary differences. The recognition of these deferred tax assets is based on taxable income forecasts that incorporate existing circumstances that will result in positive taxable income against which non-capital loss carry-forwards can be utilized as well as management’s intention to implement specific income tax planning strategies that will allow for the offset of remaining deductible temporary differences against future earnings of taxable entities within the consolidated group.

Deferred tax assets have not been recognized in respect of $280 million (2020 - $280 million) of capital losses as it is not probable that future taxable capital gains will be available against which the Company can utilize the benefits of these losses. These losses do not expire.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

16. Property, plant and equipment

	Construction work in progress	Land	Water treatment & distribution, wastewater collection & treatment	Energy transmission & distribution	Retail systems & equipment	Corporate information systems & other	Right-of-use assets[1]	Total
Cost								
Balance, beginning of 2021	$ 347	$ 321	$ 9,906	$ 3,467	$ 4	$ 82	$ 95	$ 14,222
Additions[2]	876	1	122	4	-	7	1	1,011
Additions through business acquisitions (note 6)	11	27	178	-	-	-	-	216
Disposals and retirements[3]	-	(1)	(57)	(9)	-	(4)	(3)	(74)
Disposition through expropriation (note 7)	(3)	-	(64)	-	-	-	-	(67)
Transfers into service	(644)	1	422	221	-	-	-	-
Foreign currency valuation adjustments	1	(1)	(8)	-	-	-	-	(8)
Balance, end of 2021	588	348	10,499	3,683	4	85	93	15,300
Accumulated depreciation								
Balance, beginning of 2021	-	-	2,304	935	3	48	19	3,309
Depreciation	-	-	219	102	-	9	10	340
Disposals and retirements[3]	-	-	(46)	(7)	-	(4)	(2)	(59)
Disposition through expropriation (note 7)	-	-	(14)	-	-	-	-	(14)
Foreign currency valuation adjustments	-	-	(1)	-	-	-	-	(1)
Balance, end of 2021	-	-	2,462	1,030	3	53	27	3,575
Net book value, end of 2021	$ 588	$ 348	$ 8,037	$ 2,653	$ 1	$ 32	$ 66	$ 11,725

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

	Construction work in progress	Land	Water treatment & distribution, wastewater collection & treatment	Energy transmission & distribution	Retail systems & equipment	Corporate information systems & other	Right-of-use assets[1]	Total
Cost								
Balance, beginning of 2020	$ 405	$ 307	$ 9,295	$ 3,144	$ 4	$ 71	$ 89	$ 13,315
Additions[2]	833	-	155	3	-	-	8	999
Additions through business acquisitions	-	-	2	-	-	-	-	2
Disposals and retirements[3]	(1)	(2)	(27)	(19)	-	(1)	(2)	(52)
Transfers into service	(883)	16	515	340	-	12	-	-
Transfers	(5)	-	-	-	-	-	-	(5)
Foreign currency valuation adjustments	(2)	-	(34)	(1)	-	-	-	(37)
Balance, end of 2020	347	321	9,906	3,467	4	82	95	14,222
Accumulated depreciation								
Balance, beginning of 2020	-	-	2,129	856	2	38	10	3,035
Depreciation	-	-	204	96	1	10	10	321
Disposals and retirements[3]	-	-	(21)	(17)	-	-	(1)	(39)
Foreign currency valuation adjustments	-	-	(8)	-	-	-	-	(8)
Balance, end of 2020	-	-	2,304	935	3	48	19	3,309
Net book value, end of 2020	$ 347	$ 321	$ 7,602	$ 2,532	$ 1	$ 34	$ 76	$ 10,913

1 The ROU assets primarily consist of land and buildings (including office spaces).

2 Additions include non-cash contributed assets of $128 million (2020 - $171 million) and assets constructed using cash contributions of $108 million (2020 - $131 million).

3 Gains or losses on disposals are recognized within depreciation and amortization expense.

Borrowing costs capitalized during the year ended December 31, 2021, were $13 million (2020 - $9 million). The weighted average rates used to determine the borrowing costs eligible for capitalization ranged from 2.90% to 4.14% (2020 - 3.46% to 4.49%).

There are no security charges over the Company's PP&E, except as described in note 19.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

17. Intangible assets and goodwill

	Goodwill	Customer rights[1]	Other rights (including water rights)	CCN	Software	Total
Cost						
Balance, beginning of 2021	$ 79	$ 52	$ 114	$ 85	$ 249	$ 579
Additions	-	52	-	-	26	78
Additions through business acquisition	98	-	-	-	-	98
Disposals and retirements[2]	-	-	-	-	(2)	(2)
Change in construction work in progress	-	(52)	-	-	1	(51)
Foreign currency translation adjustments	(2)	-	-	-	-	(2)
Balance, end of 2021	175	52	114	85	274	700
Accumulated amortization						
Balance, beginning of 2021	-	-	15	-	96	111
Amortization	-	7	2	-	24	33
Disposals and retirements[2]	-	-	-	-	(2)	(2)
Balance, end of 2021	-	7	17	-	118	142
Net book value, end of 2021	$ 175	$ 45	$ 97	$ 85	$ 156	$ 558

	Goodwill	Customer rights[1]	Other rights (including water rights)	CCN	Software	Total
Cost						
Balance, beginning of 2020	$ 80	$ 51	$ 110	$ 87	$ 220	$ 548
Additions	-	-	-	-	75	75
Internally generated additions	-	-	-	-	1	1
Disposals and retirements[2]	-	(51)	-	-	(22)	(73)
Change in construction work in progress	-	52	-	-	(24)	28
Transfers	-	-	5	-	-	5
Foreign currency translation adjustments	(1)	-	(1)	(2)	(1)	(5)
Balance, end of 2020	79	52	114	85	249	579
Accumulated amortization						
Balance, beginning of 2020	-	49	12	-	99	160
Amortization	-	2	3	-	19	24
Disposals and retirements[2]	-	(51)	-	-	(22)	(73)
Balance, end of 2020	-	-	15	-	96	111
Net book value, end of 2020	$ 79	$ 52	$ 99	$ 85	$ 153	$ 468

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

1 The Company's customer rights consist of rights to operate in the FortisAlberta Service territory. The customer rights expired on December 31, 2020, and were re-acquired for a term of eight years effective January 1, 2021.
2 Gains or losses on disposals are recognized within depreciation and amortization expense.

Borrowing costs capitalized during the year ended December 31, 2021, were $nil (2020 - $2 million at weighted average rates of 4.07% to 4.49%).

There are no security charges over the Company's intangible assets, except as described in note 19.

For purposes of impairment testing, CCN has been allocated to CGUs as follows:

	2021	2020
Cash-generating unit:		
U.S. operations segment - Water Arizona	$ 83	$ 83
U.S. operations segment - other	2	2
	$ 85	$ 85

For purposes of impairment testing, goodwill acquired through business combinations has been allocated to CGUs as follows:

	2021	2020
Cash-generating unit:		
U.S. operations segment - Water Arizona	$ 51	$ 52
U.S. operations segment – San Tan operations	97	-
U.S. operations segment - other	8	8
Other - Canadian operations	19	19
	$ 175	$ 79

The most recent impairment testing for goodwill was performed in the fourth quarter of 2021 for each CGU.

Key assumptions used for value in use calculations

The future cash flows of the underlying businesses are relatively stable since they relate primarily to ongoing electricity, natural gas and water supply in a rate-regulated environment. In the case of CGUs operating under a rate-regulated environment, revenues are set by the regulators to cover operating costs and to earn a return on the rate base, which is set at the regulator's approved weighted average cost of capital for the underlying utility. For non-regulated CGUs, revenues are estimated based on long-term water supply contracts executed with the customers, which include escalation in rates and volumes over the term of the contracts.

The calculation of value in use for the CGUs is most sensitive to the following assumptions:

Discount rates

The after-tax discount rates used ranged from 2.75% to 6.09% (2020 - 3.96% - 5.85%), which were estimated based on the weighted average cost of capital for the CGUs.

Timing of future rate increases

Revenue growth is forecast at average from 1.59% to 7.22% per annum (2020 - from 1.53% to 19.40% per annum). In the case of rate-regulated businesses, if future rate filings are delayed then rate increases and increased cash flows from revenues would be affected. In the case of non-regulated businesses, delays in execution of additional long-term contracts could affect cash flows from revenues.

Sensitivity to changes in assumptions

Assumptions have been tested using reasonably possible alternative scenarios. For all scenarios considered, the recoverable value remained above the carrying amount of the CGU.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

18. Trade and other payables

	2021	2020
Trade payables	$ 331	$ 263
Accrued liabilities	126	106
Accrued interest	27	27
Due to employees	22	24
Income tax payable	-	6
	$ 506	$ 426

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

19. Loans and borrowings

	Effective interest rate	Principal payment terms	2021	2020
Long-term loans and borrowings				
Municipal debt obligations				
Obligations to the City				
At 7.01%, due between 2021 and 2023[1]	6.96%	Annual installments	$ 3	$ 5
At 5.20%, due between 2021 and 2034[2]	5.36%	Semi-annual installments	39	44
At 3.41%, due between 2021 and 2042[3]	3.42%	Periodic installments	482	508
			524	557
Obligation to the Town of Collingwood				
At 3.97% due between 2021 and 2043[4]	3.93%	Periodic installments	7	7
			531	564
Public debentures				
At 1.95%, due in 2022	2.11%	Due at maturity	100	100
At 1.30%, due in 2023	1.45%	Due at maturity	100	100
At 0.98%, due in 2024[5]	1.13%	Due at maturity	100	-
At 6.80%, due in 2029	7.05%	Due at maturity	150	150
At 2.41%, due in 2031[5]	2.49%	Due at maturity	200	-
At 5.65%, due in 2035	5.88%	Due at maturity	200	200
At 6.65%, due in 2038	6.83%	Due at maturity	200	200
At 5.75%, due in 2039	5.88%	Due at maturity	200	200
At 4.55%, due in 2042	4.65%	Due at maturity	300	300
At 3.55%, due in 2047	3.62%	Due at maturity	400	400
At 3.95%, due in 2048	4.03%	Due at maturity	200	200
At 3.11%, due in 2049	3.17%	Due at maturity	350	350
At 2.90%, due in 2050	2.95%	Due at maturity	300	300
At 3.29%, due in 2051[5]	3.35%	Due at maturity	200	-
			3,000	2,500
Private debt notes				
Bonds at 3.74%, due in 2021[6]	3.80%	Due at maturity	-	176
Bonds at 3.00%, due in 2024 (note 6)	3.03%	Due at maturity	6	-
Bonds at 3.94%, due between 2021 and 2029	4.01%	Monthly installments	1	1
Bonds at 5.00%, due in 2041	5.08%	Due at maturity	142	143
Bonds at 3.63%, due in 2041	3.71%	Due at maturity	50	51
Bonds at 3.08%, due in 2051[7]	3.13%	Due at maturity	63	-
			262	371
			3,793	3,435
Debt issuance costs			(20)	(18)
Total long-term loans and borrowings			3,773	3,417
Short-term debt – commercial papers			256	155
Total loans and borrowings			4,029	3,572
Less: current portion			391	365
			$ 3,638	$ 3,207

Obligations to the City

1 Debentures were initially issued by the City, on behalf of the Company, pursuant to the City Bylaw authorization. The outstanding debentures are a direct, unconditional obligation of the City.

2 In 2009, the City transferred the Gold Bar wastewater treatment plant (Gold Bar) to EPCOR. Pursuant to the Gold Bar asset transfer agreement, EPCOR issued $112 million of long-term debt to the City representing EPCOR's proportionate share of the City's debt obligations in respect of Gold Bar assets.

3 In 2017, the City transferred the sanitary and stormwater services business (Drainage business) to the Company. Pursuant to the transfer of Drainage business, the Company issued a promissory note to the City having fair value of $604 million on the date of transfer, representing EPCOR's proportionate share of the City's debt obligations in respect of Drainage business.

The obligation to the City will rank at least equal to all current and future senior unsecured debt that may be issued by the Company.

Obligation to the Town of Collingwood

4 In 2018, the Company acquired Collingwood PowerStream Utility Services Corp. (Collingwood). As part of the acquisition, the Company assumed long-term debt of $8 million payable to the Town of Collingwood. The debt is fully secured by the assets of the Collingwood utility.

Public debentures

5 During the year, the Company issued $500 million of three-tranche long-term public debentures, consisting of a $100 million three-year note maturing in 2024, a $200 million 10-year note maturing in 2031 and a $200 million 30-year note maturing in 2051.

The public debentures are unsecured direct obligations of the Company and, subject to statutory preferred exemptions, rank equally with all other unsecured and unsubordinated indebtedness of the Company. The debentures are redeemable by the Company prior to maturity at the greater of par and a price specified under the terms of the debenture.

Private debt notes

6 During the year, the private debt note of US$138 million was fully repaid by the Company.

7 During the year, the Company issued US$50 million private debt notes for a term of 30 years.

The private debt notes consists of all notes issued in U.S. dollars. These notes are unsecured direct obligations of the Company and, subject to statutory preferred exemptions, rank equally with all other unsecured and unsubordinated indebtedness of the Company. The private debt notes are redeemable by the Company prior to maturity at the greater of par and a price specified under the terms of the private debt notes.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

20. Deferred revenue

	2021	2020
Balance, beginning of year	$ 3,992	$ 3,778
Contributions received[1]	233	290
Transfers from provisions (note 21)	5	11
Recognized on business acquisition (note 6)	60	-
Revenue recognized	(84)	(78)
De-recognized on expropriation of the BHC water utility systems (note 7)	(15)	-
Foreign currency valuation adjustments	(2)	(9)
Other	(2)	-
Balance, end of year	4,187	3,992
Less: current portion	78	83
	$ 4,109	$ 3,909

1 Contributions received include cash contributions of $84 million (2020 - $107 million), accruals for contributions receivable of $24 million (2020 - $24 million) and non-cash contributions of $125 million (2020 - $159 million).

21. Provisions

	2021	2020
Contributions from customers and developers	$ 93	$ 20
Post-employment benefit obligation	60	70
Other long-term employee benefit obligation	28	25
Short-term employee benefit obligation	36	25
Other	4	2
	221	142
Less: current portion	47	33
	$ 174	$ 109

Contributions from customers and developers

	2021	2020
Balance, beginning of year	$ 20	$ 20
Contributions received[1]	4	14
Recognized on business acquisition (note 6)	84	-
Unwinding of interest included within finance expense (note 10)	3	-
Transfers to deferred revenue (note 20)	(5)	(11)
Contributions refunded	(6)	(3)
De-recognition on expropriation of the BHC water utility systems (note 7)	(5)	-
Foreign currency valuation adjustment	(2)	-
Balance, end of year	$ 93	$ 20

1 During the year, the Company received non-cash contributed assets of $3 million (2020 - $12 million).

Post-employment benefits

Total cash payments for pension benefits for the year ended December 31, 2021, consisting of cash contributed by the Company to the LAPP, other defined contribution and benefit plans, and cash payments directly to beneficiaries for their unfunded pension plan, were $49 million (2020 - $48 million). Total contributions expected to be paid in 2022 to the LAPP, other defined contribution and benefit plans, and cash payments directly to beneficiaries for their unfunded pension plan are $45 million.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

22. Other liabilities

	2021	2020
Customer deposits	$ 33	$ 30
Drainage transition cost compensation	6	15
Lease liabilities	113	124
Contingent consideration	38	45
Environmental quality liability (note 6)	27	-
Derivative financial liabilities (note 28)	6	-
	223	214
Less: current portion	43	49
	$ 180	$ 165

Drainage transition cost compensation

The Drainage transition cost compensation represents the Company's commitment to the City to pay for the stranded cost including liabilities retained by the City relating to Drainage business. The change in the liability for Drainage transition cost compensation was as follows:

	2021	2020
Balance, beginning of year	$ 15	$ 29
Payment during the year	(9)	(14)
Balance, end of year	$ 6	$ 15

The remaining balance at December 31, 2021, of $6 million was paid by the Company on January 4, 2022.

Lease liabilities

The changes in lease liabilities during the year were as follows:

	2021	2020
Balance, beginning of year	$ 124	$ 128
Lease contracts executed during the year	1	8
Financing cost	4	4
Payments during the year	(16)	(16)
Balance, end of year	$ 113	$ 124

Approximate future payments by the Company with respect to its lease liabilities are as follows:

	2021	2020
Within one year	$ 15	$ 16
After one year but not more than five years	53	55
More than five years	64	77
Unrecognized finance expense	(19)	(24)
	$ 113	$ 124

The lease liabilities primarily consist of the Company's leases for land and buildings including office space in Edmonton, Canada. In 2007, the Company entered into a long-term agreement to lease commercial space in an office tower in Edmonton, Canada, primarily for its head office. The agreement, which became effective in the fourth quarter of 2011, has an initial lease term of approximately 20 years, expiring on December 31, 2031, and provides for three successive five-year renewal options. The Company is not reasonably certain whether it will exercise the renewal options under the lease, accordingly, the Company has not recognized a ROU asset or lease liability related to the renewal options.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The Company has sub-leased a portion of the space under its office lease to a third party under the same terms and conditions as the Company's head lease with its landlord. The Company has classified the sub-lease as a finance lease. Accordingly, the Company de-recognized the portion of ROU assets related to sub-lease and recognized the finance lease receivable, which is included in other financial assets (note 14) in the consolidated statements of financial position.

In addition to the above sub-lease, effective November 1, 2013, the Company sub-leased another portion of the space under its head office lease to a third party. The term of the sub-lease to the third party expires on October 31, 2023 with two renewal options of four years each. The Company has recognized the sub-lease as an operating lease. Approximate future payments to the Company under the operating lease are as follows:

		2021		2020
Within one year	$	2	$	1
After one year but not more than five years		1		3
	$	3	$	4

Contingent consideration

At the beginning of the year, the contingent consideration represented the present value of the Company's commitment to pay approximately US$33 million on securing newly executed long-term contracts for the supply of water by EPCOR 130 Project Inc. and finalization of certain pending agreements with third parties, and approximately US$8 million on securing additional customer connections for natural gas by EPCOR Gas Texas. During the year, the Company negotiated and fully settled the contingent consideration related to EPCOR Gas Texas. The Company is reasonably certain that it will be required to settle the commitment related to EPCOR 130 Project Inc. by way of cash payments and has accordingly recognized the liability for contingent consideration in the consolidated statements of financial position. The changes in the liability for contingent consideration were as follows:

		2021		2020
Balance, beginning of year	$	45	$	43
Payment of contingent consideration		(3)		-
Unwinding of interest included within finance expenses (note 10)		2		3
De-recognition of contingent consideration[1]		(6)		-
Foreign currency valuation adjustments		-		(1)
Balance, end of year	$	38	$	45

1 During the year, the Company settled the remaining contingent consideration of $9 million (US$7 million) related to EPCOR Gas Texas for $3 million (US$2 million). The difference between the liability and payment of $6 million (US$5 million) was recognized within other income.

23. Share capital

Authorized shares

Unlimited number of voting common shares without nominal or par value.

Issued shares

Three common shares to the City.

Capital contributions

Share capital includes capital contributions received from the City. As of December 31, 2021, the Company had accumulated capital contributions of $798 million (2020 - $798 million).

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

24. Changes in non-cash working capital

	2021	2020
Trade receivables (note 13)	$ (79)	$ (17)
Prepaid expenses (note 13)	(12)	2
Inventories	(1)	1
Trade and other payables (note 18)	80	(5)
	$ (12)	$ (19)

	2021	2020
Included in specific items on consolidated statements of cash flows:		
Interest paid	$ (1)	$ 1
Income tax expense	(12)	7
Business acquisition	5	-
Gain on expropriation of the Bullhead City water utility systems	(23)	-
Net payment advances on other financial assets	(11)	-
Other	(2)	1
	(44)	9
Operating activities	12	(10)
Investing activities	20	(18)
	$ (12)	$ (19)

25. Changes in liabilities arising from financing activities:

	At December 31, 2020	Issued or received	Redemptions, repayments or payments	Foreign currency valuation adjustments	Other	At December 31, 2021
Long-term loans and borrowings (including current portion):						
Obligations to the City	$ 557	$ -	$ (33)	$ -	$ -	$ 524
Obligation to the Town of Collingwood	7	-	-	-	-	7
Public debentures	2,500	500	-	-	-	3,000
Private debt notes	371	64	(176)	(2)	5	262
Debt issuance costs	(18)	(4)	-	-	2	(20)
Total long-term loans and borrowings (including current portion)	$ 3,417	$ 560	$ (209)	$ (2)	$ 7	$ 3,773
Short-term loans and borrowings	$ 155	$ 4,125	$ (4,024)	$ -	$ -	$ 256
Contributions from customers and developers	$ 20	$ 1	$ (6)	$ (2)	$ 80	$ 93
Lease liabilities	$ 124	$ -	$ (16)	$ -	$ 5	$ 113

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

	At December 31, 2019	Issued or received	Redemptions, repayments or payments	Foreign currency valuation adjustments	Other	At December 31, 2020
Long-term loans and borrowings (including current portion):						
Obligations to the City	$ 591	$ -	$ (32)	$ -	$ (2)	$ 557
Obligation to the Town of Collingwood	8	-	(1)	-	-	7
Public debentures	2,100	400	-	-	-	2,500
Private debt notes	376	-	-	(7)	2	371
Debt issuance costs	(16)	(3)	-	-	1	(18)
Total long-term loans and borrowings (including current portion)	$ 3,059	$ 397	$ (33)	$ (7)	$ 1	$ 3,417
Short-term loans and borrowings	$ 22	$ 1,968	$ (1,835)	$ -	$ -	$ 155
Contributions from customers and developers	$ 20	$ 2	$ (3)	$ -	$ 1	$ 20
Lease liabilities	$ 128	$ -	$ (16)	$ -	$ 12	$ 124

26. Related party balances and transactions

Compensation of key management personnel

	2021	2020
Salaries and short-term employee benefits	$ 7	$ 6
Post-employment benefits	1	1
Other long-term employee benefits	4	2
	$ 12	$ 9

The Company provides utility services to key management personnel, comprised of the executive leadership team, as it is the sole provider of certain services. Such services are provided in the normal course of operations and are based on normal commercial rates, as approved by regulation.

Other related party transactions

The Company is 100% owned by the City. The Company provides maintenance, repair and construction services, and customer billing services to the City, and purchases of supplies, mobile equipment services, public works and various other services pursuant to service agreements. Sales between the Company and the City are in the normal course of operations, and are generally based on normal commercial rates, or as agreed to by the parties.

The following summarizes the Company's related party transactions with the City:

	2021	2020
Consolidated Statements of Comprehensive Income		
Revenues (a)	$ 46	$ 50
Other raw materials and operating charges (b)	12	14
Other administrative expenses (c)	2	2
Franchise fees and property taxes (d)	130	117
Finance expenses (e)	20	21

(a) Included within revenues are energy and water sales of $2 million (2020 - $2 million), provision of service including the wastewater and stormwater services of $4 million (2020 - $4 million), maintenance, repair and construction services of $35 million (2020 - $40 million) and customer billing services of $5 million (2020 - $4 million).

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

(b) Includes certain costs of waste management and planning services, mobile equipment services, public works and various other services pursuant to service agreements.

(c) Incudes certain costs of cash processing service, corporate services for Water and Drainage operations and various other services pursuant to service agreements.

(d) Includes franchise fees of $71 million at 0.42 cents per kilowatt hour of electric distribution sales volume for direct connect customers and 0.97 cents per kilowatt hour for all other customers (2020 - $64 million at 0.46 cents per kilowatt hour of electric distribution sales volume for direct connect customers and 0.90 cents per kilowatt hour for all other customers), franchise fees of $25 million at 8% (2020 - $23 million at 8%) of qualifying revenues of water services and waste water services, franchise fees of $10 million at 8% (2020 - $10 million at 8%) of qualifying revenue of sanitary services and property taxes of $24 million (2020 - $20 million) on properties owned within the City municipal boundaries.

(e) Finance expenses on the long-term loans and borrowings obligation to the City at interest rates ranging from 3.41% to 7.01% (2020 - 3.41% to 7.01%).

The following summarizes the Company's related party balances with the City:

	2021	2020
Consolidated Statements of Financial Position		
Trade and other receivables	$ 40	$ 61
Property, plant and equipment (f)	54	40
Trade and other payables	17	21
Loans and borrowings (note 19)	524	557
Deferred revenue (g)	69	63
Other liabilities (note 22)	6	15

(f) During the year, the City transferred contributed assets of $32 million (2020 - $28 million) for various Drainage projects to the Company. In addition, the City provided services of $22 million (2020 - $12 million) for capital construction for electric and water distribution infrastructure and sanitary and stormwater infrastructure.

(g) Includes contributed assets received and contributions received and accrued for capital projects during the years 2021 and 2020.

27. Financial instruments

Classification

The classifications of the Company's financial instruments measured at fair value at December 31, 2021 and 2020 are summarized as follows:

	Fair value hierarchy
Long-term investment	Level 3
Derivative financial instruments	
Financial electricity purchase contracts	Level 1
Cross-currency interest rate swap contracts	Level 2
Other liabilities	
Contingent consideration	Level 3

Fair value

The carrying amounts of cash, trade and other receivables, trade and other payables and certain other liabilities (including customer deposits) approximate their fair values due to the short-term nature of these financial instruments.

The carrying amounts and fair values of the Company's remaining financial assets and financial liabilities measured at amortized cost are as follows:

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

		2021		2020	
	Fair value hierarchy	Carrying amount	Fair value	Carrying amount	Fair value
Non-current portion of other financial assets[1]	Level 2	$ 237	$ 256	$ 182	$ 187
Loans and borrowings (note 19)	Level 2	4,029	4,537	3,572	4,374
Other liabilities (note 22)					
Drainage transition cost compensation	Level 2	6	6	15	15

1 Excluding long-term investment in Vista Ridge of $6 million (2020 - $7 million).

Fair value hierarchy

The financial instruments of the Company that are recorded at fair value have been classified into levels using a fair value hierarchy. A Level 1 valuation is determined by using unadjusted quoted prices in active markets for identical assets or liabilities. A Level 2 valuation is based upon inputs other than quoted prices included in Level 1 that are observable for the instruments either directly or indirectly. A Level 3 valuation for the assets and liabilities are not based on observable market data.

Long-term investment

The long-term investment consists of the Company's 5% equity interest in Vista Ridge. Vista Ridge is a privately owned company; therefore, its equity instruments are not traded in an active market and the fair value of equity is not readily observable. Accordingly, the fair value of long-term investment in Vista Ridge is determined based on unobservable inputs including the expected future cash flows from the investment discounted at a risk-adjusted discount rate.

Derivative financial instruments

The fair value of the Company's financial electricity purchase contracts is determined based on exchange index prices in active markets and are based on the external readily observable market data such as forward electricity prices. It is possible that the fair value amounts will differ from future outcomes and the impact of such variations could be material.

The fair value of the Company's cross currency interest rate swaps (CCIRS) contracts is determined as the present value of the estimated future cash flows using an appropriate interest rate yield curve and foreign exchange rate based on market conditions at December 31, 2021, discounted at a market rate. Derivative instruments reflect the estimated amount that the Company would receive or pay to settle the CCIRS contracts at December 31, 2021.

Within the consolidated statements of financial position, long-term derivative financial assets are presented within other financial assets, long-term derivative financial liabilities are presented within other liabilities, short-term derivative financial assets are presented within trade and other receivables and short-term derivative financial liabilities are presented within trade and other payables. At December 31, 2021, derivative financial instruments had a $6 million balance included within other liabilities.

Contingent consideration

The contingent consideration is payable in U.S. dollars and payment is mainly dependent on securing newly executed long-term contracts for the supply of water by EPCOR 130 Project Inc.

The fair value of the Company's contingent consideration is determined based on the expected timing of securing new contracts and customer connections and the resulting cash flows are then discounted at risk-adjusted discount rates. Any change in the timing of securing new contracts and additional customer connections, discount rate or foreign exchange rate can have a significant impact on the fair value of contingent consideration.

Timing of securing new contracts and additional customer connections

If the timing of securing new contracts and additional customer connections is advanced by two years, the fair value of the contingent consideration will increase by $4 million (2020 - $5 million). Alternatively, if the timing of securing new contracts and additional customer connections is delayed by two years then the fair value of the contingent consideration will decrease by $4 million (2020 - $5 million).

Discount rate

A 50 basis point change in the discount rate will change the fair value of the contingent consideration by $nil (2020 - $1 million).

Foreign exchange rate

A 10% change in the foreign exchange rate will change the fair value of the contingent consideration by $4 million (2020 - $4 million).

Non-current portion of other financial assets

The fair values of the Company's long-term receivables are based on the estimated interest rates implicit in comparable loan arrangements plus an estimated credit spread based on the counterparty risks at December 31, 2021 and 2020. The fair value of finance lease receivables is based on the estimated current market rates for similar assets discounted at the prevailing interest rates for comparable investments plus an estimated credit spread based on counterparty risks at December 31, 2021 and 2020.

Loans and borrowings

The fair value of the Company's long-term public debt is based on the pricing sourced from market data as of December 31, 2021 and 2020. The fair value of the Company's remaining long-term loans and borrowings is based on determining a current yield for the Company's debt at December 31, 2021 and 2020. This yield is based on an estimated credit spread for the Company over the yields of long-term Government of Canada bonds for Canadian dollar loans and U.S. Treasury bonds for U.S. dollar loans that have similar maturities to the Company's debt. The estimated credit spread is based on the Company's indicative spread as published by independent financial institutions.

Short-term loans and borrowings are measured at amortized cost and their carrying value approximate their fair value due to the short-term nature of these financial instruments.

Drainage transition cost compensation

The transition cost compensation is payable in installments to the City to compensate for stranded costs related to the transfer of the Drainage business. The carrying value of the Drainage transition cost compensation represents the present value of the liability, discounted using interest rates prevailing at the time of initial recognition of liability. The fair value of the Drainage transition cost compensation is determined based on the future cash outflows discounted at risk-adjusted discount rates prevailing at December 31, 2021 and 2020. The remaining balance at December 31, 2021 of $6 million was paid by the Company on January 4, 2022.

28. Financial risk management

Overview

The Company is exposed to a number of different financial risks arising from business activities and its use of financial instruments, including market risk, credit risk, and liquidity risk. The Company's overall risk management process is designed to identify, assess, measure, manage, mitigate and report on business risk, which includes financial risk. Enterprise risk management is overseen by the Board of Directors and senior management is responsible for fulfilling objectives, targets, and policies approved by the Board of Directors. EPCOR's Director, Audit and Risk Management provides the Board of Directors with an enterprise risk assessment on a quarterly basis. Risk management strategies, policies and limits are designed to help ensure the risk exposures are managed within the Company's business objectives and risk tolerance. The Company's financial risk management objective is to protect and minimize volatility in earnings and cash flows.

Financial risk management, including foreign exchange risk, interest rate risk, liquidity risk and the associated credit risk, is carried out by the centralized Treasury function in accordance with applicable policies. The Audit Committee of the Board of Directors, in its oversight role, performs regular and ad-hoc reviews of risk management controls and procedures to help monitor compliance.

Market risk

Market risk is the risk of loss that results from changes in market factors such as electricity prices, foreign currency exchange rates and interest rates. The level of market risk to which the Company is exposed at any point in time varies depending on market conditions, expectations of future price or market rate movements and the composition of the Company's financial assets and financial liabilities held, non-trading physical asset and contract portfolios, and trading portfolios. The Company's financial exposure management policy is approved by the Board of Directors and the associated procedures and practices are designed to manage the foreign exchange and interest rate risk throughout the Company.

To manage the exposure related to changes in market risk, the Company may use various risk management techniques including derivative financial instruments such as forward contracts, contracts-for-differences or interest rate swaps. Such instruments may be used for an anticipated transaction to establish a fixed price denominated in a foreign currency or to secure electricity price or to secure fixed interest rates.

The sensitivities provided in each of the following risk discussions disclose the effect of reasonable changes in relevant prices and rates on net income at the reporting date. The sensitivities are hypothetical and should not be considered to be predictive of future performance or indicative of earnings on these financial instruments. The Company's actual exposure to market risks is constantly changing as the Company's portfolio of debt, foreign currency and commodity contracts changes. Changes in fair values or cash flows based on market variable fluctuations cannot be extrapolated since the relationship between the change in the market variable and the change in fair value or cash flows may not be linear. In addition, the effect of a change in a particular market variable on fair values or cash flows is calculated without considering interrelationships between the various market rates or mitigating actions that would be taken by the Company.

Electricity price and volume risk

EPCOR sells electricity to regulated rate option (RRO) customers under a RRT. All electricity for the RRO customers is purchased in real time from the AESO in the spot market. Under the RRT, the quantity of electricity consumption, method used to reduce the risk of adverse price movement for the expected electricity consumption, and the electricity selling prices to be charged to these customers are determined by the EPSP. Under the EPSP, the Company uses financial contracts to mitigate the risk of adverse price movement of electricity under the RRO requirements and incorporate the price into customer rates for the applicable month. The Company enters into financial contracts-for-differences for forecasted volumes of electricity to mitigate the risk of adverse price movement up to 120 days in advance of the month in which the electricity (load) is expected to be consumed by the RRO customers. The volume of electricity is based on load (usage) forecasts for the consumption month. When consumption varies from forecast consumption patterns, EPCOR is exposed to prevailing market prices on fifty percent of the load when the volume of electricity contracted under the financial contracts-for-differences is short of actual load requirements or greater than the actual load requirements. Exposure to variances in electricity volume can be exacerbated by other events such as unexpected generation plant outages and extreme weather patterns.

Under contracts-for-differences the Company agrees to exchange, with a counterparty meeting the Company's credit risk parameters, the difference between the AESO electricity spot market price and the fixed contract price for a forecasted volume of electricity up to 120 days in advance of the consumption date, all in accordance with the EPSP. The contracts-for-differences are referenced to the AESO electricity spot price and any movement in the AESO price results in changes in the contract settlement amount. If the risks of the EPSP were to become untenable, EPCOR could test the market and potentially re-contract the procurement risk under an outsourcing arrangement at a certain cost that would likely increase procurement costs and reduce margins. The Company may enter into additional financial electricity purchase contracts outside the EPSP to further mitigate the risk of adverse movement in the price of electricity.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

At December 31, 2021, following are the details of electricity price forward contracts:

	2021	2020
Electricity price forward contracts		
Fair value	$ 9	$ 1
Cash paid to counterparty	(9)	(1)
Net fair value	$ -	$ -
Net notional buys		
Terawatt hours of electricity	1.0	1.0
Range of contract terms (in years)	0.1 to 0.3	0.1 to 0.3

At December 31, 2021, holding all other variables constant, a $5 per megawatt hour change in the forward electricity spot price would increase or decrease net income by approximately $5 million (2020 - $5 million). In preparing the sensitivity analysis, the Company compared average AESO electricity spot prices to the forward index price for the past 24 months. Based on historical fluctuations, the Company estimates that the fair value of the contracts could increase or decrease by up to $33 million (2020 - $23 million) with a corresponding change to net income.

Foreign exchange risk

The Company is exposed to foreign exchange risk on foreign currency denominated future transactions and firm commitments, monetary assets and liabilities denominated in a foreign currency, and on its net investments in foreign subsidiaries.

The Company's financial exposure management policy attempts to minimize material exposures arising from movements in the Canadian dollar relative to the U.S. dollar or other foreign currencies. The Company's direct exposure to foreign exchange risk arises on commitments denominated in U.S. dollar or other currencies. The Company coordinates and manages foreign exchange risk centrally by identifying opportunities for naturally occurring opposite movements and then dealing with any material residual foreign exchange risks.

The Company may use foreign currency forward contracts or CCIRS contracts to fix the functional currency of its non-functional currency cash flows thereby reducing its anticipated foreign currency denominated transactional exposure. The Company looks to limit foreign currency exposures as a percentage of estimated future cash flows.

Private debt notes - hedges of net investment in foreign operations

The Company designates the majority of private debt notes denominated in U.S. dollars as foreign exchange hedges of net investment in foreign operations to partially mitigate the impacts of foreign exchange rate fluctuations arising from the retranslation of the net investment in foreign operations having functional currency of U.S. dollar into the Company's functional currency in the consolidated financial statements. Accordingly, from the date of designation, foreign exchange gains or losses on translation of the debts denominated in U.S. dollars are recorded in other comprehensive income, which minimizes volatility in earnings resulting from the foreign currency conversion. During the year ended December 31, 2021, the Company recorded a foreign exchange gain of $2 million (2020 - $7 million) on private debt notes designated as hedges of net investment in foreign operations in other comprehensive income.

At December 31, 2021, holding all other variables constant, a 10% change in the U.S. dollar exchange rate would change the private debt balance by $26 million (2020 - $37 million).

Derivative financial instruments - hedges of a net investment in foreign operations

The Company also uses the CCIRS contracts as hedges of a net investment in foreign operations to partially mitigate the impacts of foreign exchange rate fluctuations arising from the retranslation of the net investment in foreign operations into the Company's functional currency in the consolidated financial statements. In order to hedge the foreign currency risk exposure related to net investment in foreign operations, the Company has executed the following CCIRS contracts and designated these as hedges of net investment in foreign operations:

- On March 17, 2021, the Company entered into a 30-year CCIRS contract, to swap Canadian dollars for U.S. dollars. The Company swapped the notional amount of $62 million for US$50 million at an exchange rate of $1.2405 to US$1.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The Company receives semi-annual interest in Canadian dollars at 3.471% per annum and pays interest in US$ at 3.221% per annum on the aforementioned notional values. At maturity in March 2051, the Company will swap the original notional amounts at the same exchange rate.

- On March 23, 2021, the Company entered into a 30-year CCIRS contract, to swap the notional amount of $100 million for US$79 million at an exchange rate of $1.2587 to US$1. The Company receives semi-annual interest in Canadian dollars at 3.39% per annum and pays interest in US$ at 3.183% per annum on the aforementioned notional values. There was no physical exchange of currencies at inception; however, at maturity in September 2051, the Company will physically swap the original notional amounts at the same exchange rate.

The counterparties to the CCIRS contracts are major financial institutions. The fair value of the Company's CCIRS contracts is determined based on a discounted cash flow model, using readily available information from the market. The inputs used include notional amounts, foreign exchange rates, the contractual fixed settlement rates and an applicable discount factor.

The Company performed an effectiveness test at the time of execution of contracts by comparing the changes in fair value of the net investment in foreign operations (hedged item), due to movements in the foreign currency rate with the changes in fair value of the hedging instruments and determined that a perfect hedging relationship existed at inception. The Company uses the hypothetical derivative method to determine the subsequent changes in fair value of the hedged item. The Company performs the effectiveness test at each reporting date to ensure that the changes in fair values of the hedging instruments and the hedged item are moving in opposite directions and offsetting each other. At December 31, 2021, the Company performed the effectiveness test on the outstanding CCIRS contracts designated as hedges and determined that the hedges are effective and the hedging instrument and hedged item are moving in opposite directions.

The change in fair value of ($6) million of the effective portion of the hedges of net investment in foreign operations for the year ended December 31, 2021 was recorded in other comprehensive income. There was a negligible ineffective portion of the hedges of net investment in foreign operations identified during the period, which was recognized in net income within other administrative expenses.

The following table summarizes the Company's outstanding CCIRS contracts designated as hedges of net investment in foreign operations:

					2021
Receive notional	Receive rate in $	Pay notional	Pay rate in US$	Maturity	Fair value
$ 62	3.471%	US$ 50	3.221%	March 19, 2051	$ (2)
$ 100	3.390%	US$ 79	3.183%	September 15, 2051	(4)
					$ (6)

At December 31, 2021, holding all other variables constant, a 10% change in the U.S. dollar exchange rate would change the fair value of CCIRS contracts by $23 million.

Foreign exchange swap contracts

The Company entered into two foreign exchange swap contracts in March 2021 to convert excess foreign currency to Canadian dollars for a short duration. As per the terms of the contracts, the Company swapped US$50 million for $63 million at a fixed exchange rate. In April 2021, the Company settled the contracts and swapped the currencies back at a predetermined fixed exchange rate. The Company did not designate these financial contracts as hedges and the changes in the fair value of the contracts upon settlement of ($1) million was recognized in net income within other administrative expenses.

Foreign exchange forward contracts

The Company entered into three foreign exchange forward contracts in April 2021 to manage the foreign exchange risk associated with the expected purchase of US dollars for settlement of liabilities, including US dollar denominated loans and borrowings. Under the terms of the foreign exchange forward contracts, the Company committed to buy US$80 million in exchange for $100 million. In September 2021, the Company entered into agreements with the financial institutions to extend the maturity date of the contracts from September 15, 2021 to December 15, 2021, on the similar terms. On December 15, 2021, the Company settled the contracts and exchanged the currencies at predetermined fixed exchange rates. The Company did not designate these financial contracts as hedges and the change in the fair value gain on the contracts upon settlement of $2 million was recognized in net income within other administrative expenses.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

Interest rate risk

The Company is exposed to changes in interest rates on its cash, and floating-rate short-term loans and obligations. The Company is also exposed to interest rate risk from the possibility that changes in the interest rates will affect future cash flows or the fair values of its financial instruments. Interest rate risk associated with short-term loans and borrowings is immaterial due to its short-term maturity. At December 31, 2021 and 2020, all long-term debt was fixed rate.

Credit risk

Credit risk is the possible financial loss associated with the inability of counterparties to satisfy their contractual obligations to the Company, including payment and performance. The Company's credit risk management policy is approved by the Board of Directors and the associated procedures and practices are designed to manage the credit risks associated with the various business activities throughout the Company. Credit and counterparty risk management procedures and practices generally include assessment of individual counterparty creditworthiness and establishment of exposure limits prior to entering into a transaction with the counterparty. Exposures and concentrations are subsequently monitored and are regularly reported to senior management. Creditworthiness continues to be evaluated after transactions have been initiated, at a minimum, on an annual basis.

To manage and mitigate credit risk, the Company employs various credit mitigation practices such as master netting agreements, pre-payment arrangements from customers, credit derivatives and other forms of credit enhancements including cash deposits, parent company guarantees and bank letters of credit.

Maximum credit risk exposure

The Company's maximum credit exposure is represented by the carrying amount of the following financial assets:

	2021	2020
Cash[1]	$ 30	$ 8
Trade and other receivables[1 & 2] (note 13)	546	473
Other financial assets[3] (note 14)	246	188
	$ 822	$ 669

1 This table does not take into account collateral held. At December 31, 2021, the Company held cash deposits of $33 million (2020 - $30 million) as security for certain counterparty accounts receivable and derivative contracts. The Company is not permitted to sell or re-pledge this collateral in the absence of default of the counterparties providing the collateral.

2 The Company's maximum exposures related to trade and other receivables by major credit concentration is comprised of $380 million (2020 - $360 million) related to rate-regulated customer balances. At December 31, 2021, the Company held credit enhancements to mitigate credit risk on trade and other receivables in the form of letters of credit of $45 million (2020 - $3 million), performance bonds of $55 million (2020 - $54 million) and parental guarantees of $397 million (2020 - $350 million).

3 Excluding long-term investment in Vista Ridge.

Credit quality and concentrations

The Company is exposed to credit risk on outstanding trade receivables associated with its energy and water related activities, agreements with the AESO and on electricity supply agreements with wholesale and retail customers. The Company is also exposed to credit risk from its cash, derivative financial instruments, finance lease receivables and long-term financing arrangements receivable.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The credit quality of the Company's trade and other receivables, by major credit concentrations, cash, and other financial assets at December 31, 2021 and 2020, are as follows:

	2021		2020	
	Investment grade or secured[1,2] %	Unrated %	Investment grade or secured[1,2] %	Unrated %
Trade and other receivables				
Rate-regulated customers[3]	8	62	12	64
Non rate-regulated customers	13	17	10	14
Total trade and other receivables	21	79	22	78
Cash	100	-	100	-
Other financial assets				
Finance lease receivables	100	-	100	-
Long-term receivables	100	-	100	-

1 Credit ratings are based on the Company's internal criteria and analysis, which take into account, among other factors, the investment grade ratings of external credit rating agencies when available.

2 Certain trade receivables and other financial assets are considered to have low credit risk as they are either secured by the underlying assets, secured by other forms of credit enhancements, or the counterparties are local or provincial governments.

3 Rate-regulated customer trade receivables include energy sales and distribution and transmission services, water sales, collection and conveyance of sanitary and stormwater, treatment of wastewater, rate-regulated and default electricity supply receivables. Under the Electric Utilities Act (Alberta), the Company provides electricity supply in its service areas to residential, agricultural and small commercial customers at regulated rates and to those commercial and industrial customers who have not chosen a competitive offer and consume electricity under default supply arrangements.

Rate-regulated customer credit risk

Credit risk exposure for residential and commercial customers under regulated energy and water supply rates is generally limited to amounts due from customers for energy and water consumed, and collection and conveyance of sanitary and stormwater as well as treatment of wastewater services provided but not yet paid for. The Company mitigates credit risk from counterparties by performing credit checks and on higher risk customers, by taking pre-payments, cash deposits or letters of credit. The Company monitors credit risk for this portfolio at the gross exposure level.

Trade and other receivables and expected credit loss allowance

Trade and other receivables consist primarily of amounts due from retail customers including commercial customers, other retailers, government-owned or sponsored entities, regulated public utility distributors, and other counterparties. Commercial customer contracts provide performance assurances through letters of credit, irrevocable guarantees and bonds. For other retail customers, represented by a diversified customer base, credit losses are generally low and the Company provides for an allowance for lifetime ECL.

The Company calculates the ECL on accounts receivable using a provision matrix approach, which is based on the Company's historical credit loss experience and current economic conditions (including forward-looking information) for accounts receivables to estimate the ECL. The provision matrix specifies fixed provision rates depending on the number of days that a trade receivable is due or past due in each business unit. The total ECL allowance at December 31, 2021 was $12 million (2020 - $17 million).

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

The gross amounts of trade receivables and corresponding ECL allowance are as follows:

December 31, 2021	Gross accounts receivable	Expected credit loss allowance	Net accounts receivable
Current[1]	$ 509	$ (4)	$ 505
Outstanding 31 to 60 days	20	(1)	19
Outstanding 61 to 90 days	7	(1)	6
Outstanding more than 90 days	22	(6)	16
	$ 558	$ (12)	$ 546

December 31, 2020	Gross accounts receivable	Expected credit loss allowance	Net accounts receivable
Current[1]	$ 418	$ (3)	$ 415
Outstanding 31 to 60 days	19	(2)	17
Outstanding 61 to 90 days	8	(1)	7
Outstanding more than 90 days	45	(11)	34
	$ 490	$ (17)	$ 473

1 Current amount represents trade and other receivables outstanding up to 30 days. Amounts outstanding for more than 30 days are considered past due.

The Company, in view of the COVID-19 pandemic and related economic impacts including the temporary deferral of customer payments, had adjusted the ECL provision matrix to account for a higher level of potential customer defaults in 2020. This adjustment in the ECL provision matrix resulted in recording an additional provision for ECL of $11 million for the year ended December 31, 2020. During the current year, the Company was able to collect a portion of receivables against the additional provision for ECL related to COVID-19, which resulted in reduction of the ECL provision.

During the year, the Company recognized $10 million (2020 - $23 million including additional expense of $11 million related to the estimated COVID-19 impact) of ECL as an expense in net income relating to customer amounts that the Company determined may not be fully collectable. The ECL allowance is determined by each business unit considering the unique factors of the business unit's trade and other receivables. Write-offs are determined either by applying specific risk factors to customer groups' aged balances in trade and other receivables or by reviewing material accounts on a case-by-case basis. Reductions in trade and other receivables and the related ECL allowance is recorded when the Company has determined that recovery is not possible.

The changes in the ECL allowance are as follows:

	2021	2020
Balance, beginning of year	$ (17)	$ (4)
Additional allowances created	(10)	(23)
Recovery of receivables	(5)	(3)
Receivables written off	20	13
Balance, end of year	$ (12)	$ (17)

At December 31, 2021, the Company held $23 million (2020 - $25 million) of customer deposits for the purpose of mitigating the credit risk associated with trade and other receivables from residential and business customers.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they become due. The Company's liquidity is managed centrally by the Company’s Treasury function. The Company manages liquidity risk through regular monitoring of cash and currency requirements by preparing short-term and long-term cash flow forecasts and by matching the maturity profiles of financial assets and financial liabilities to identify financing requirements. The financing requirements are addressed through a combination of committed and demand revolving credit facilities and financings in public or private debt capital markets.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

In the normal course of business, the Company provides financial support and performance assurances including guarantees, letters of credit and surety bonds to third parties in respect of its subsidiaries. The Company has revolving extendible credit facilities, which are used principally for the purpose of backing the Company's commercial paper program and providing letters of credit, as outlined below:

December 31, 2021	Expiry	Total facilities	Banking commercial paper issued	Letters of credit and other facility draws	Net amounts available
Committed					
Syndicated bank credit facility[1]	November 2026	$ 600			
Bank credit facility[1]	March 2024	200			
Total committed		$ 800	$ 256	$ -	$ 544
Uncommitted					
Bank credit facilities[2]	No expiry	200	-	134	66
Bank credit facility	No expiry	25	-	-	25
Total uncommitted		225	-	134	91
		$ 1,025	$ 256	$ 134	$ 635

December 31, 2020	Expiry	Total facilities	Banking commercial paper issued	Letters of credit and other facility draws	Net amounts available
Committed					
Syndicated bank credit facility[1]	November 2024	$ 600	$ 154	$ -	$ 446
Uncommitted					
Bank credit facilities[2]	No expiry	200	-	85	115
Bank credit facility	No expiry	25	-	-	25
Bank credit facility	November 2021	13	-	-	13
Total uncommitted		238	-	85	153
		$ 838	$ 154	$ 85	$ 599

1 The Company's $600 million committed syndicated bank credit facility and $200 million committed bank credit facility added during the first quarter of 2021, are available and can be used for direct borrowings, issuance of letters of credit and backstopping EPCOR's commercial paper program. The committed bank credit facilities cannot be withdrawn by the lenders until expiry, provided that the Company operates within the related terms and covenants. The extension feature of EPCOR's committed bank credit facility gives the Company the option each year to re-price and extend the term of the facilities by one or more years subject to agreement with the lenders. The Company regularly monitors market conditions and may elect to enter into negotiations to extend the maturity dates. At December 31, 2021, commercial paper totaling $256 million was issued and outstanding (2020 - $154 million).

2 The Company's uncommitted bank credit facility consists of five bilateral credit facilities (totaling $200 million) which are restricted to letters of credit. At December 31, 2021, letters of credit totaling $134 million have been issued and outstanding (2020 - $85 million) to meet the credit requirements of electricity market participants and to meet conditions of certain service agreements.

The Company has a Canadian base shelf prospectus under which it may raise up to $2 billion of debt with maturities of not less than one year. At December 31, 2021, the available amount remaining under this Canadian base shelf prospectus was $2 billion (2020 - $1.60 billion). The Canadian base shelf prospectus expires in January 2024.

The undiscounted cash flow requirements and contractual maturities of the Company's financial liabilities, including interest payments at December 31, 2021, are as follows:

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

	2022	2023	2024	2025	2026	2027 and thereafter	Total contractual cash flows
Trade and other payables[1]	$ 479	$ -	$ -	$ -	$ -	$ -	$ 479
Loans and borrowings[2]	391	132	139	34	34	3,318	4,048
Interest payments on loans and borrowings	147	141	143	139	138	2,016	2,724
Other liabilities[3]	48	82	13	13	13	77	246
	$ 1,065	$ 355	$ 295	$ 186	$ 185	$ 5,411	$ 7,497

1 Excluding accrued interest on loans and borrowings of $27 million.

2 Excluding debt issuance costs of ($20) million and fair value adjustment on the City debt of $1 million.

3 Including undiscounted liabilities for contingent consideration and lease liabilities.

The Company's undiscounted cash flow requirements and contractual maturities in the next 12 months of $1,065 million are expected to be funded from operating cash flows, commercial paper issuance and the Company's credit facilities. In addition, the Company may issue medium-term notes or other instruments to fund its obligations or investments. The key factors in determining whether to issue medium-term notes are the cash requirements of the business, the expected interest rates for medium-term notes, the estimated demand by investors for EPCOR debt and the general state of debt capital markets.

29. Capital management

The Company’s primary objectives when managing capital are to safeguard the Company’s ability to continue as a going concern, pay dividends to its shareholder in accordance with the Company’s dividend policy, maintain an investment grade credit rating, and to facilitate the acquisition or development of projects in Canada and the U.S. consistent with the Company's growth strategy. The Company manages its capital structure in a manner consistent with the risk characteristics of the underlying assets. This overall objective and policy for managing capital remained unchanged in the current year from the prior year.

The Company manages capital through regular monitoring of cash and currency requirements by preparing short-term and long-term cash flow forecasts and reviewing monthly financial results. The Company matches the maturity profiles of financial assets and financial liabilities to identify financing requirements to help ensure an adequate amount of liquidity.

The Company considers its capital structure to consist of long-term and short-term debt net of cash and shareholder’s equity. The following table represents the Company's total capital:

	2021	2020
Loans and borrowings (note 19)[1]	$ 4,048	$ 3,588
Cash	(30)	(8)
Net debt	4,018	3,580
Total equity	4,007	3,791
Total capital	$ 8,025	$ 7,371

1 Excluding debt issuance costs of ($20) million (2020 - ($18) million) and fair value adjustment on the City debt of $1 million (2020 - $2 million).

EPCOR has the following externally imposed financial covenants on its capital as a result of its credit facilities and outstanding debt:

- Maintenance of modified consolidated net tangible assets to consolidated net tangible assets ratio, as defined in the debt agreements, of not less than 80% (2020 - 80%);
- Maintenance of consolidated senior debt to consolidated capitalization ratio, as defined in the debt agreements, of not

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

more than 75% (2020 - 75%) ;

- Maintenance of interest coverage ratio, as defined in the debt agreements of not less than 1.75 to 1.00 is not applicable as the Company has a debt rating of investment grade; and
- Limitation on secured debt and external debt issued by subsidiaries.

These capital restrictions are defined in accordance with the respective agreements. For the years ended December 31, 2021 and 2020, the Company complied with all externally imposed capital restrictions.

30. Commitments, contingencies and guarantees

Commitments

The following represent the Company's commitments at December 31, 2021, not otherwise disclosed in these consolidated financial statements:

	2022	2023	2024	2025	2026	2027 and thereafter	Total
Distribution and Transmission segment capital projects[1]	$ 14	$ 17	$ -	$ -	$ -	$ -	$ 31
Developer funded sanitary and stormwater capital projects[2]	14	2	-	-	-	-	16
Various sanitary and capital project service agreements[3]	92	21	-	-	-	-	113
30-year US$ note purchase agreement[4]	63	-	-	-	-	-	63
U.S. Operations billing and customer care services agreements[5]	3	3	4	3	4	13	30
Renewable electricity credits purchase contract[6]	-	1	1	2	1	25	30
Design and build sub-contract for Darlington water treatment plant[7]	22	7	-	-	-	-	29
Other	28	14	10	7	7	-	66
	$ 236	$ 65	$ 15	$ 12	$ 12	$ 38	$ 378

1 The Company has commitments for several Distribution and Transmission projects as directed by the AESO.

2 The Company has commitments for several developer funded new sanitary and stormwater infrastructure projects throughout the city of Edmonton.

3 The Company has executed various non-cancellable purchase commitments related to sanitary and stormwater related Master Service Agreements for engineering services and construction contractors for various capital projects, as well as, commitment related to rehabilitate and upgrade the sanitary sewers in the city of Edmonton.

4 The Company has entered into a US$ note purchase agreement with a group of investors for the issuance of $63 million (US$ 50 million) 30-year US$ private debt at a coupon rate of 3.13%. The funds will be drawn against the agreement in April 2022.

5 The Company has entered into a contract for billing and customer care services for its U.S. Operations. The contract is valid for a period of 10 years up to November 2030.

6 The Company has entered into a contract with Renewable Energy Systems Canada Inc. to acquire renewable electricity credits (RECs) sourced from a new wind farm in southern Alberta for a term of 20 years. The procurement of RECs is sized to match EPCOR's grid electricity consumption for all of its operations within the city of Edmonton, net of expected

generation from a solar farm near the E.L. Smith water treatment plant. The construction of the new wind farm is proposed to be completed in the first half of 2023.

7 The Company has entered into a sub-contract with the Bird Construction Industrial Services Ltd to design and build a water treatment plant in Darlington, Ontario.

Contingencies

The Company and its subsidiaries are subject to various legal claims that arise in the normal course of business. Management believes that the aggregate contingent liability of the Company arising from these claims is immaterial and therefore no provision has been made.

Guarantees

The Company in the normal course of business issues payment guarantees and performance assurance bonds on behalf of its subsidiaries to meet the conditions of the agreements with third parties. At December 31, 2021, guarantees totaling $532 million (2020 - $511 million) have been issued to various third parties.

31. Segment information

The Company operates in the following reportable business segments, which follow the organization, management and reporting structure within the Company.

Water Services

Water Services is primarily involved in the treatment, transmission, distribution and sale of water, the collection and conveyance of sanitary and stormwater, and the treatment of wastewater within Edmonton and other communities in Western Canada. This segment's water and wastewater business includes the provision of design, build, finance, operating and maintenance services for municipal and industrial customers in Western Canada.

Distribution and Transmission

Distribution and Transmission is involved in the transmission and distribution of electricity within Edmonton. This segment also provides contract commercial services including the design, construction and maintenance and other support services of street lighting, traffic signal and light rail transit and other utility electrical infrastructure for municipal and commercial customers in Alberta.

Energy Services

Energy Services is primarily involved in the provision of the RRO electricity service and default supply electricity services to customers in Alberta. This segment also provides competitive electricity and natural gas products under the Encor brand.

U.S. Operations

U.S. Operations are primarily involved in the treatment, transmission, distribution and sale of water, the collection and treatment of wastewater, and operating and maintenance services within the Southwestern U.S. This segment also provides natural gas distribution and transmission services in Texas. All of the Company's operations conducted in the U.S. are included in this segment.

Other

Other includes all of the remaining business segments of the Company, which do not meet the criteria of a reportable business segment. Other primarily includes Ontario natural gas and electricity distribution businesses, certain Canadian business development projects including the construction and leases of electrical infrastructure related to the Trans Mountain pipeline expansion project and water treatment plant in Darlington, and the cost of the Company's net unallocated corporate office expenses.

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

Year ended December 31, 2021	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Intersegment Elimination	Consolidated
External revenues	$ 724	$ 485	$ 580	$ 325	$ 112	$ -	$ 2,226
Inter-segment revenue	-	15	17	-	-	(32)	-
Revenues	724	500	597	325	112	(32)	2,226
Energy purchases and system access fees	-	-	467	16	45	-	528
Other raw materials and operating charges	98	43	-	72	44	(5)	252
Staff costs and employee benefits expenses	149	79	39	48	61	(10)	366
Depreciation and amortization	170	102	8	64	33	-	377
Franchise fees and property taxes	38	92	-	10	1	-	141
Other administrative expenses	30	15	26	20	9	(17)	83
Operating expenses	485	331	540	230	193	(32)	1,747
Operating income (loss) before corporate income (charges)	239	169	57	95	(81)	-	479
Corporate income (charges)	(36)	(23)	(18)	(6)	83	-	-
Operating income	203	146	39	89	2	-	479
Gain on expropriation of the BHC water utility systems (note 7)	-	-	-	89	-	-	89
Other income	-	-	-	7	-	-	7
Finance recoveries (expenses)	(78)	(60)	(5)	(50)	45	-	(148)
Income tax expense	-	-	-	(33)	(6)	-	(39)
Net income	$ 125	$ 86	$ 34	$ 102	$ 41	$ -	$ 388
Capital additions	$ 474	$ 252	$ 2	$ 134	$ 47	$ -	$ 909

(Tabular amounts in millions of Canadian dollars unless otherwise indicated)

Year ended December 31, 2020	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Intersegment Elimination	Consolidated
External revenues	$ 676	$ 480	$ 415	$ 286	$ 130	$ -	$ 1,987
Inter-segment revenue	-	14	18	-	-	(32)	-
Revenues	676	494	433	286	130	(32)	1,987
Energy purchases and system access fees	-	-	315	3	49	-	367
Other raw materials and operating charges	93	54	-	57	65	(6)	263
Staff costs and employee benefits expenses	146	80	36	42	58	(9)	353
Depreciation and amortization	163	96	6	61	25	-	351
Franchise fees and property taxes	35	83	-	8	1	-	127
Other administrative expenses	34	16	36	18	11	(17)	98
Operating expenses	471	329	393	189	209	(32)	1,559
Operating income (loss) before corporate income (charges)	205	165	40	97	(79)	-	428
Corporate income (charges)	(33)	(22)	(13)	(6)	74	-	-
Operating income (loss)	172	143	27	91	(5)	-	428
Other income	-	-	-	-	1	-	1
Finance recoveries (expenses)	(76)	(59)	(4)	(48)	50	-	(137)
Income tax expense	-	-	-	(11)	(5)	-	(16)
Net income	$ 96	$ 84	$ 23	$ 32	$ 41	$ -	$ 276
Capital additions	$ 448	$ 218	$ 53	$ 117	$ 88	$ -	$ 924

The Company's assets and liabilities by business segment at December 31, 2021 and 2020 are summarized as follows:

December 31, 2021	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Intersegment Elimination	Consolidated
Total assets	$ 7,616	$ 2,773	$ 330	$ 1,939	$ 5,208	$ (4,619)	$ 13,247
Total liabilities	5,915	1,869	278	1,528	4,269	(4,619)	9,240

December 31, 2020	Water Services	Distribution & Transmission	Energy Services	U.S. Operations	Other	Intersegment Elimination	Consolidated
Total assets	$ 7,204	$ 2,636	$ 253	$ 1,547	$ 4,817	$ (4,277)	$ 12,180
Total liabilities	5,594	1,787	206	1,240	3,839	(4,277)	8,389

Non-current assets by geography

	2021	2020
Canada	$ 10,796	$ 10,175
U.S.	1,821	1,492
	$ 12,617	$ 11,667