MANAGEMENT'S DISCUSSION & ANALYSIS

REPORT TO SHAREHOLDERS

Year ended December 31, 2021

MANAGEMENT'S DISCUSSION AND ANALYSIS

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Basis of Presentation

The following Management's Discussion and Analysis ("MD&A") of the financial and operating results of Pembina Pipeline Corporation ("Pembina" or the "Company") is dated February 24, 2022, and is supplementary to, and should be read in conjunction with, Pembina's audited consolidated financial statements as at and for the year ended December 31, 2021 ("Consolidated Financial Statements"). The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board, using the accounting policies described in Note 3 of the Consolidated Financial Statements. All dollar amounts contained in this MD&A are expressed in Canadian dollars unless otherwise noted. For further details on Pembina and Pembina's significant assets, including definitions for capitalized terms used herein and not otherwise defined, refer to Pembina's annual information form ("AIF") for the year ended December 31, 2021. Additional information about Pembina filed with Canadian and U.S. securities commissions, including quarterly and annual reports, annual information forms (filed with the U.S. Securities and Exchange Commission (the "SEC") under Form 40-F) and management information circulars, can be found online at www.sedar.com, www.sec.gov and through Pembina's website at www.pembina.com.

Abbreviations

For a list of abbreviations that may be used in this MD&A, refer to the Abbreviations section of this MD&A.

Non-GAAP and Other Financial Measures

Pembina has disclosed certain financial measures and ratios within this MD&A that management believes provide meaningful information in assessing Pembina's underlying performance, but which are not specified, defined or determined in accordance with the Canadian generally accepted accounting principles ("GAAP") and which are not disclosed in Pembina's Consolidated Financial Statements. Such non-GAAP financial measures and non-GAAP ratios do not have any standardized meaning prescribed by IFRS and may not be comparable to similar financial measures disclosed by other issuers. Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A for additional information regarding these non-GAAP measures and non-GAAP ratios.

Risk Factors and Forward-Looking Information

Management has identified the primary risk factors that could have a material impact on the financial results and operations of Pembina. Such risk factors are described in the "Risk Factors" section of this MD&A and are also included in Pembina's AIF. The Company's financial and operational performance is potentially affected by a number of factors, including, but not limited to, the factors described within the "Forward-Looking Statements & Information" section of this MD&A. This MD&A contains forward-looking statements based on Pembina's current expectations, estimates, projections and assumptions. This information is provided to assist readers in understanding the Company's future plans and expectations and may not be appropriate for other purposes.

1. ABOUT PEMBINA

Pembina Pipeline Corporation is a leading energy transportation and midstream service provider that has served North America's energy industry for more than 65 years. Pembina owns an integrated network of hydrocarbon liquids and natural gas pipelines, gas gathering and processing facilities, oil and natural gas liquids infrastructure and logistics services, and a growing export terminals business. Through our integrated value chain, we seek to provide safe and reliable infrastructure solutions which connect producers and consumers of energy across the world, support a more sustainable future and benefit our customers, investors, employees and communities. For more information, please visit pembina.com.

Purpose of Pembina:

To be the leader in delivering integrated infrastructure solutions connecting global markets:

- ***Customers** choose us first for reliable and value-added services;*
- ***Investors** receive sustainable industry-leading total returns;*
- ***Employees** say we are the 'employer of choice' and value our safe, respectful, collaborative and inclusive work culture; and*
- ***Communities** welcome us and recognize the net positive impact of our social and environmental commitment.*

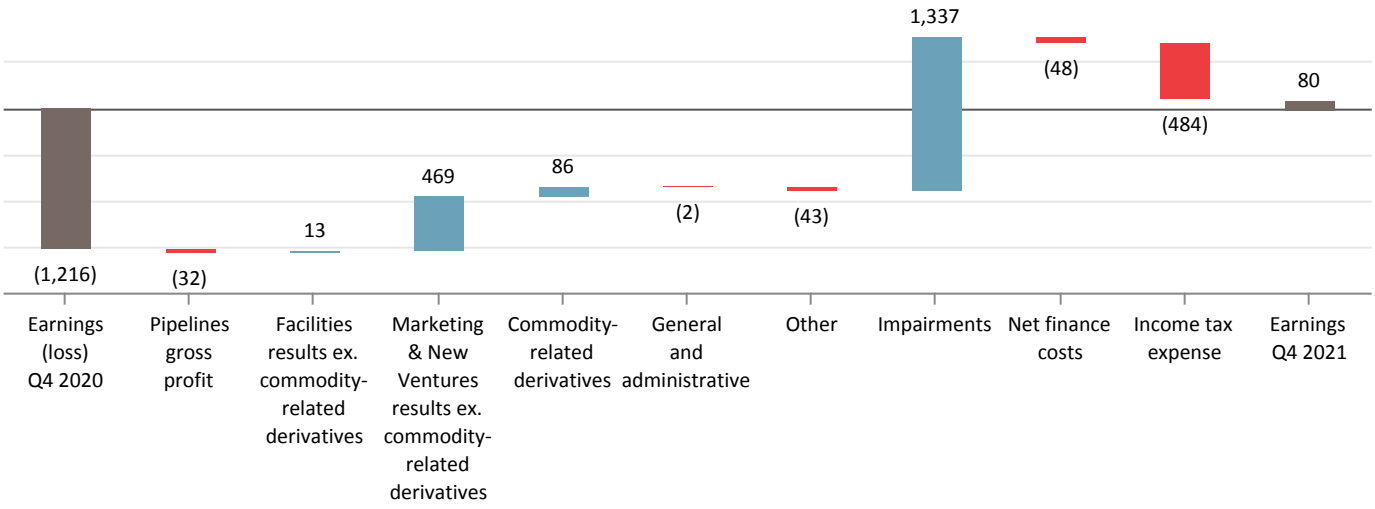
2. FINANCIAL & OPERATING OVERVIEW

Consolidated Financial Overview for the Three Months Ended December 31

Results of Operations

($ millions, except where noted)	**2021**	2020	Change	% Change
Revenue	**2,560**	1,680	880	52
Net revenue[1]	**1,084**	954	130	14
Gross profit	**785**	247	538	218
Earnings (loss)	**80**	(1,216)	1,296	107
Earnings (loss) per common share – basic and diluted *(dollars)*	**0.08**	(2.28)	2.36	104
Cash flow from operating activities	**697**	766	(69)	(9)
Cash flow from operating activities per common share – basic *(dollars)*	**1.27**	1.39	(0.12)	(9)
Adjusted cash flow from operating activities[1]	**734**	603	131	22
Adjusted cash flow from operating activities per common share – basic *(dollars)*[1]	**1.33**	1.10	0.23	21
Capital expenditures	**176**	161	15	9
Adjusted EBITDA[1]	**970**	866	104	12
Total volumes *(mboe/d)*[2]	**3,437**	3,614	(177)	(5)

Change in Earnings *($ millions)*[3][4]



Results Overview

Earnings in the fourth quarter of 2021 were positively impacted by higher gross profit in Marketing & New Ventures due to higher margins on NGL and crude oil sales, combined with higher share of profit from Aux Sable, partially offset by higher realized losses on commodity-related derivative financial instruments compared to the fourth quarter of 2020. Facilities gross profit increased due to Prince Rupert Terminal and Duvernay III being placed into service, partially offset by unrealized losses on commodity related derivatives for certain gas processing fees tied to AECO prices. Pipelines gross profit was impacted by higher recoverable costs, offset by a lower share of profit from Ruby, combined with the expiration of contracts on the Nipisi and Mitsue Pipeline systems. Pembina recognized $439 million ($335 million net of tax) in impairments during the fourth quarter of 2021 largely related to certain Oil Sands assets, compared to impairments of $2.1 billion ($1.6 billion net of tax) recognized during the fourth quarter of 2020 associated with its investments in Ruby, CKPC and the assets associated with Jordan Cove. Other expense increased due to higher transformation and restructuring costs and project write-downs. Net finance costs increased during the fourth quarter of 2021 due to lower foreign exchange gains and losses on non-commodity-related derivative financial instruments as compared to gains in the fourth quarter of 2020. Income tax expense increased as impairments in the prior year drove a deferred tax recovery.

Changes in Results for the Three Months Ended December 31		
Revenue	▲	$880 million increase, largely due to higher NGL and crude oil market prices during the fourth quarter of 2021, combined with the contribution from assets placed into service in Facilities and higher recoverable costs, partially offset by the expiration of contracts on certain Oil Sands assets, discussed below.
Cost of goods sold	▼	$750 million increase, largely due to higher NGL and crude oil market prices.
Operating expenses	●	Consistent with the prior period. Higher power costs, the majority of which are recoverable, were largely offset by lower repairs and maintenance costs.
Depreciation and amortization included in operations	●	Consistent with the prior period.
Share of profit from equity accounted investees	▲	$13 million increase, largely due to higher share of profit from Aux Sable as a result of higher NGL margins and a wider AECO-Chicago natural gas price differential, combined with higher share of profit from Veresen Midstream due to Veresen Midstream Hythe Developments going into service and higher volumes on the Dawson Assets and higher share of profit from Alliance due to a gain recognized on the debt re-financing, partially offset by a lower contribution from Ruby as the owners agreed to defer distributions for the fourth quarter of 2021.
Realized loss on commodity-related derivatives	▼	$30 million negative variance, due to higher NGL market prices during the fourth quarter of 2021, which also drove higher margins on NGL sales, resulting in a realized loss on NGL-based derivative instruments for the period. Pembina utilizes derivative instruments to stabilize the results of its marketing business.
Unrealized (gain) loss on commodity-related derivatives	▲	$116 million positive variance, primarily due to contracts maturing in the period, partially offset by newly added contracts and unrealized losses on commodity-related derivatives for certain gas processing fees tied to AECO prices, discussed in the "Facilities" section.
General & administrative	●	Consistent with the prior period. Higher short term incentives were largely offset by a reduction in salaries due to a lower headcount.
Other expense	▼	$45 million increase primarily due higher transformation and restructuring costs and higher project write-downs.
Impairments	▲	During the fourth quarter of 2021, Pembina recognized $439 million in impairments ($335 million net of tax) primarily related to the Nipisi and Mitsue Pipeline systems and the Edmonton South Rail Terminal due to contract expirations, compared to impairments of $2.1 billion ($1.6 billion net of tax) recognized during the fourth quarter of 2020 associated with its investments in Ruby, CKPC and the assets associated with Jordan Cove.
Net finance costs	▼	$48 million increase, primarily driven by lower foreign exchange gains and losses on non-commodity-related derivative financial instruments compared to gains in the fourth quarter of 2020.
Current tax expense	▲	$14 million decrease, primarily due to higher tax depreciation, partially offset by higher current year earnings.
Deferred tax expense	▼	$498 million increase, primarily due to the deferred tax recovery recognized in 2020 associated with the impairment of investments in Ruby, CKPC and the assets associated with Jordan Cove.
Cash flow from operating activities	▼	$69 million decrease, primarily driven by a $105 million change in non-cash working capital and a $85 million increase in taxes paid largely due to the $350 million received from the termination of the arrangement agreement ("Arrangement Termination Payment") with Inter Pipeline Ltd., partially offset by an increase in operating results after adjusting for non-cash items, combined with a $27 million increase in revenue collected and deferred and a $19 million increase in distributions from equity accounted investees.
Adjusted cash flow from operating activities[1]	▲	$131 million increase, largely due to the same items impacting cash flow from operating activities, discussed above, net of the change in non-cash working capital and increase in taxes paid, combined with $14 million lower current tax expense.
Adjusted EBITDA[1]	▲	$104 million increase, largely due to higher margins on NGL and crude oil sales, a higher contribution from Aux Sable, combined with the contributions from assets placed into service in Facilities, and higher contribution from Veresen Midstream due to higher volumes on the Dawson Assets, partially offset by the realized loss on commodity-related derivatives, lower contribution from Ruby, and the expiration of contracts on certain Oil Sands assets, discussed above. Included in adjusted EBITDA is $189 million (2020: $174 million) related to equity accounted investees.
Total volumes *(mboe/d)*[2]	▼	177 mboe/d decrease, largely driven by lower contracted volumes on Oil Sands pipeline systems and on the Ruby Pipeline, combined with lower deferred revenue volumes on the Peace Pipeline system and lower volumes at Alberta Ethane Gathering System ("AEGS") due to third party outages and planned turnarounds in the fourth quarter of 2021, partially offset by higher contracted volumes at Younger, higher volumes associated with Duvernay III being placed into service in the fourth quarter of 2020 and higher volumes on the Dawson Assets. Volumes include 294 mboe/d (2020: 315 mboe/d) related to equity accounted investees.

▲ Increase; ▼ Decrease; or ● No impact; to earnings, adjusted EBITDA, cash flow from operations, adjusted cash flow from operating activities or total volumes.

(1) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(2) Total revenue volumes. See the "Abbreviations" section of this MD&A for definition. Marketed NGL volumes are excluded from volumes to avoid double counting. Refer to the "Marketing & New Ventures" section of this MD&A for further information.

(3) Facilities results ex. commodity-related derivatives and Marketing & New Ventures results ex. commodity-related derivatives includes gross profit less realized and unrealized losses on commodity related derivative financial instruments.

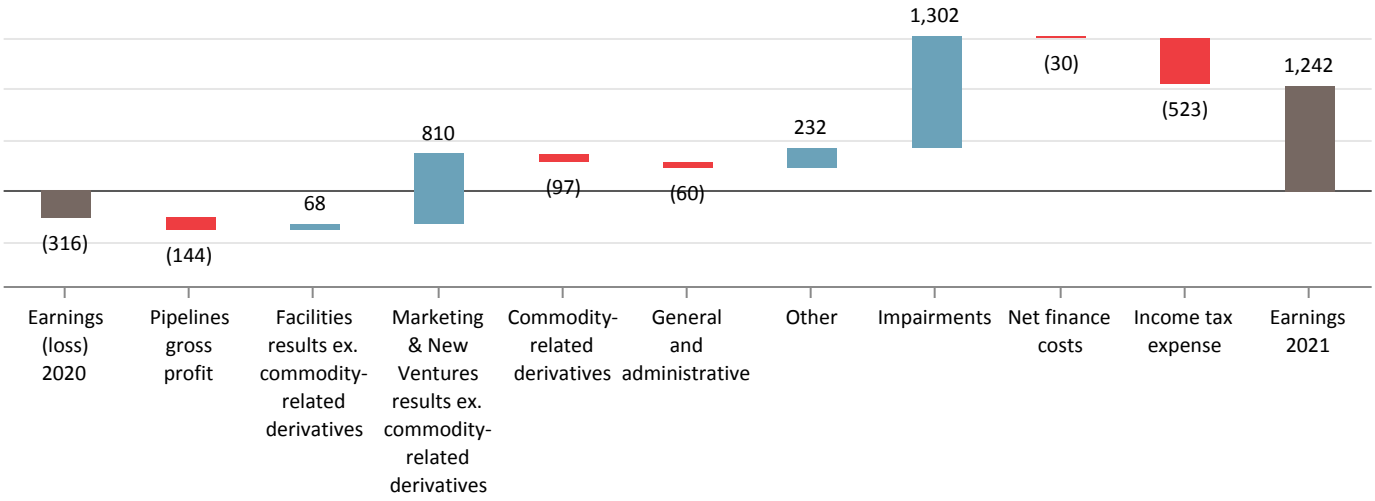
(4) Other includes other expenses and corporate.

Consolidated Financial Overview for the 12 Months Ended December 31

Results of Operations

($ millions, except where noted)	**2021**	2020	Change	% Change
Revenue	**8,627**	5,953	2,674	45
Net revenue[(1)]	**3,938**	3,444	494	14
Gross profit	**2,647**	2,008	639	32
Earnings (loss)	**1,242**	(316)	1,558	493
Earnings (loss) per common share – basic *(dollars)*	**2.00**	(0.86)	2.86	333
Earnings (loss) per common share – diluted *(dollars)*	**1.99**	(0.86)	2.85	331
Cash flow from operating activities	**2,650**	2,252	398	18
Cash flow from operating activities per common share – basic *(dollars)*	**4.82**	4.10	0.72	18
Adjusted cash flow from operating activities[(1)]	**2,640**	2,289	351	15
Adjusted cash flow from operating activities per common share – basic *(dollars)*[(1)]	**4.80**	4.16	0.64	15
Capital expenditures	**658**	1,029	(371)	(36)
Adjusted EBITDA[(1)]	**3,433**	3,281	152	5
Total volumes *(mboe/d)*[(2)]	**3,456**	3,500	(44)	(1)

Change in Earnings *($ millions)*[(3)(4)]



Results Overview

Earnings for 2021 were positively impacted by higher gross profit in Marketing & New Ventures due to higher margins on NGL and crude oil sales, combined with higher marketed NGL volumes and higher share of profit from Aux Sable, offset by losses on commodity-related derivative financial instruments. Facilities gross profit increased due to Empress Infrastructure, Prince Rupert Terminal, and Duvernay III being placed into service, combined with unrealized gains on commodity related derivatives for certain gas processing fees tied to AECO prices and higher share of profit from Veresen Midstream. In Pipelines, higher volumes and higher recoverable costs were offset by expiration of contracts related to certain assets in Pipelines, lower share of profit from Ruby, combined with the impact of the lower U.S. dollar exchange rate. Pembina recognized $474 million ($361 million net of tax) in impairments in 2021, largely related to certain Oil Sands assets, compared to impairments of $2.1 billion ($1.6 billion net of tax) recognized during the fourth quarter of 2020 associated with its investments in Ruby, CKPC and the assets associated with Jordan Cove. Other income increased due to the receipt of the $350 million ($250 million net of tax and associated expenses) Arrangement Termination Payment, offset by lower income received from the Canadian Emergency Wage Subsidy, higher transformation and restructuring related costs, and higher project write-downs. General & administrative increased due to higher incentive costs primarily driven by the change in Pembina's share price. Income tax expense increased due to the deferred tax recovery on impairments in prior year, combined with higher current year earnings associated with the Arrangement Termination Payment.

Changes in Results for the 12 Months Ended December 31		
Revenue	▲	$2.7 billion increase, largely due to higher NGL and crude oil market prices and higher marketed NGL volumes as Pembina monetized a portion of its previously built up storage positions, combined with assets placed into service in Facilities, higher volumes in Pipelines, and higher recoverable costs. These increases were partially offset by lower storage and rail terminal revenue, expiration of contracts on certain Oil Sands assets, discussed below, lower volumes on the Vantage Pipeline as end users sourced their supply from the Redwater Complex and the impact of the lower U.S. dollar exchange rate.
Cost of goods sold	▼	$2.2 billion increase, largely due to higher NGL and crude oil market prices, combined with higher marketed NGL volumes.
Operating expenses	▼	$49 million increase, largely due to an increase in power costs, the majority of which are recoverable, as a result of higher power pool prices during 2021, combined with higher operating expenses associated with the additional assets being placed into service in Facilities.
Depreciation and amortization included in operations	▼	$22 million increase, primarily due to additional assets being placed into service during 2021.
Share of profit from equity accounted investees	●	Consistent with the prior year. Higher NGL margins and a wider AECO-Chicago natural gas price differential at Aux Sable, combined with higher share of profit from Veresen Midstream due to the contributions from the Hythe Developments going into service in March 2021 and higher volumes at the Dawson Assets, were largely offset by lower contribution from Ruby and the impact of the lower U.S. dollar exchange rate.
Realized loss (gain) on commodity-related derivatives	▼	$254 million negative variance, due to higher NGL and crude oil market prices during the period, which also drove higher margins on NGL and crude sales, resulting in a realized loss on NGL and crude oil-based derivative instruments for the year, compared to realized gains recognized during 2020. Pembina utilizes derivative instruments to stabilize the results of its marketing business.
Unrealized gain on commodity-related derivatives	▲	$157 million positive variance, primarily due to contracts maturing in the period and unrealized gains on commodity-related derivatives for certain gas processing fees tied to AECO prices, discussed in the "Facilities" section, partially offset by newly added contracts.
General & administrative	▼	$60 million increase largely due to higher incentive costs primarily driven by the change in Pembina's share price and an increase in optimization project costs, partially offset by a reduction in salaries due to a lower headcount.
Other income	▲	$230 million increase primarily due to the $350 million ($250 million net of tax and associated expenses) Arrangement Termination Payment, partially offset by lower income associated with Canadian Emergency Wage Subsidy, higher transformation and restructuring costs, and higher project write-downs.
Impairments	▲	During 2021, Pembina recognized $474 million in impairments ($361 million net of tax) primarily related to the Nipisi and Mitsue Pipeline systems and the Edmonton South Rail Terminal due to contract expirations, compared to impairments of $2.1 billion ($1.6 billion net of tax) recognized during the fourth quarter of 2020 associated with its investments in Ruby, CKPC and the assets associated with Jordan Cove.
Net finance costs	▼	$30 million increase, primarily driven by higher interest expense related to the subordinated hybrid notes and losses on non-commodity-related derivative financial instruments compared to gains in 2020, partially offset by foreign exchange gains in the year compared to foreign exchange losses in 2020 as a result of hedge accounting adopted in the second quarter of 2020.
Current tax expense	▼	$46 million increase, primarily due to higher current year earnings associated with the Arrangement Termination Payment, discussed above.
Deferred tax expense	▼	$477 million increase, largely due to the deferred tax recovery recognized in 2020 associated with the impairment of investments in Ruby, CKPC and the assets associated with Jordan Cove.
Cash flow from operating activities	▲	$398 million increase, primarily driven by an increase in operating results after adjusting for non-cash items and the $350 million Arrangement Termination Payment received in the third quarter of 2021, discussed above, partially offset by a $60 million increase in taxes paid and $35 million increase in net interest paid.
Adjusted cash flow from operating activities[(1)]	▲	$351 million increase, largely due to the same items impacting cash flow from operating activities, discussed above, net of the increase in taxes paid and $15 million decrease in preferred share dividends paid, partially offset by the $69 million higher accrued share-based payments and $46 million higher current tax expense.
Adjusted EBITDA[(1)]	▲	$152 million increase, primarily due to higher margins on NGL and crude oil sales, combined with new assets placed into service in Facilities, higher contribution from Aux Sable, and higher volumes on the Peace Pipeline system, partially offset by the realized loss on commodity-related derivatives, lower contribution from Ruby, and the expiration of contracts on certain Oil Sands assets, discussed above, combined with higher general and administrative expenses and the impact of the lower U.S. dollar exchange rate. Included in adjusted EBITDA is $725 million (2020: $681 million) related to equity accounted investees.
Total volumes *(mboe/d)*[(2)]	▼	44mboe/d decrease, largely due to lower volumes at AEGS due to third-party outages in the second half of 2021 and planned turnarounds in the fourth quarter of 2021, combined with lower contracted volumes on Oil Sands pipeline systems and on the Ruby Pipeline, partially offset by higher revenue volumes from assets placed into service in Facilities and higher volumes on the Peace Pipeline system due to increased upstream activities. Volumes include 312 mboe/d (2020: 312 mboe/d) related to equity accounted investees.

▲ Increase; ▼ Decrease; or ● No impact; to earnings, adjusted EBITDA, cash flow from operations, adjusted cash flow from operating activities or total volumes.

(1) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(2) Total revenue volumes. See the "Abbreviations" section of this MD&A for definition. Marketed NGL volumes are excluded from volumes to avoid double counting. Refer to the "Marketing & New Ventures" section of this MD&A for further information.

(3) Facilities results ex. commodity-related derivatives and Marketing & New Ventures results ex. commodity-related derivatives includes gross profit less realized and unrealized losses on commodity related derivative financial instruments.

(4) Other includes other expenses and corporate.

3. SEGMENT RESULTS

Business Overview

The Pipelines Division provides customers with pipeline transportation, terminalling, storage and rail services in key market hubs in Canada and the United States for crude oil, condensate, natural gas liquids and natural gas. The division manages pipeline transportation capacity of 3.1 mmboe/d[(1)], above ground storage of 11 mmbls[(1)] and rail terminalling capacity of approximately 105 mboe/d[(1)] within its conventional, oil sands and heavy oil, and transmission assets. The conventional assets include strategically located pipelines and terminalling hubs that gather and transport light and medium crude oils, condensate and natural gas liquids from western Alberta and northeast British Columbia to the Edmonton, Alberta area for further processing or transportation on downstream pipelines. The oil sands and heavy oil assets transport heavy and synthetic crude oil produced within Alberta to the Edmonton, Alberta area and offer associated storage, terminalling and rail services. The transmission assets transport natural gas, ethane and condensate throughout Canada and the United States on long haul pipelines linking various key market hubs. In addition, the Pipelines Division assets provide linkages between Pembina's upstream and downstream assets across North America, enabling integrated customer service offerings. Together, these assets supply products from hydrocarbon producing regions to refineries, fractionators and market hubs in Alberta, British Columbia, Illinois and California, as well as other regions throughout North America.

The Facilities Division includes infrastructure that provides Pembina's customers with natural gas, condensate and NGL services. Pembina's natural gas gathering and processing assets are strategically positioned in active, liquids-rich areas of the WCSB and Williston Basin and are integrated with the Company's other businesses. Pembina provides sweet and sour gas gathering, compression, condensate stabilization, and both shallow cut and deep cut gas processing services with a total capacity of approximately 6.1 bcf/d[(2)] for its customers. Condensate and NGL extracted at virtually all Canadian-based facilities have access to transportation on Pembina's pipelines. In addition, all NGL transported along the Alliance Pipeline are extracted through the Pembina operated Channahon Facility at the terminus. The Facilities Division includes approximately 354 mbpd[(2)] of NGL fractionation capacity, 21 mmbbls[(1)] of cavern storage capacity and associated pipeline and rail terminalling facilities and a liquefied propane export facility on Canada's West Coast. These facilities are fully integrated with the Company's other divisions, providing customers with the ability to access a comprehensive suite of services to enhance the value of their hydrocarbons. In addition, Pembina owns a bulk marine import/export terminal in Vancouver, British Columbia.

The Marketing & New Ventures Division strives to maximize the value of hydrocarbon liquids and natural gas originating in the basins where the Company operates. Pembina pursues this goal through the creation of new markets, and further enhances existing markets, to support both the Company's and its customers' overall business interests. In particular, Pembina seeks to identify opportunities to connect hydrocarbon production to new demand locations through the development of infrastructure. Pembina strives to increase producer netbacks and product demand to improve the overall competitiveness of the basins where the Company operates. Within the Marketing & New Ventures Division, Pembina undertakes value-added commodity marketing activities including buying and selling products (natural gas, ethane, propane, butane, condensate, crude oil and electricity), commodity arbitrage, and optimizing storage opportunities. The marketing business enters into contracts for capacity on both Pembina's and third-party infrastructure, handles proprietary and customer volumes and aggregates production for onward sale.

(1) Net capacity; excludes projects under development.
(2) Net capacity. Includes Aux Sable capacity. The financial and operational results for Aux Sable are included in the Marketing & New Ventures Division; excludes projects under development.

Financial and Operational Overview by Division

	3 Months Ended December 31					
	2021			2020		
($ millions, except where noted)	**Volumes[1]**	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]
Pipelines	**2,571**	**(70)**	**548**	2,730	(992)	577
Facilities	**866**	**160**	**285**	884	143	255
Marketing & New Ventures[3]	**—**	**224**	**183**	—	(684)	75
Corporate	**—**	**(181)**	**(46)**	—	(114)	(41)
Total	**3,437**	**133**	**970**	3,614	(1,647)	866

	12 Months Ended December 31					
	2021			2020		
($ millions, except where noted)	**Volumes[1]**	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]
Pipelines	**2,586**	**917**	**2,102**	2,623	128	2,208
Facilities	**870**	**715**	**1,097**	877	642	1,012
Marketing & New Ventures[3]	**—**	**391**	**420**	—	(646)	193
Corporate	**—**	**(358)**	**(186)**	—	(540)	(132)
Total	**3,456**	**1,665**	**3,433**	3,500	(416)	3,281

(1) Volumes for Pipelines and Facilities are revenue volumes, which are physical volumes plus volumes recognized from take-or-pay commitments. Volumes are stated in mboe/d, with natural gas volumes converted to mboe/d from MMcf/d at a 6:1 ratio.

(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(3) Marketed NGL volumes are excluded from volumes to avoid double counting. Refer to the "Marketing & New Ventures" section of this MD&A for further information.

Pipelines

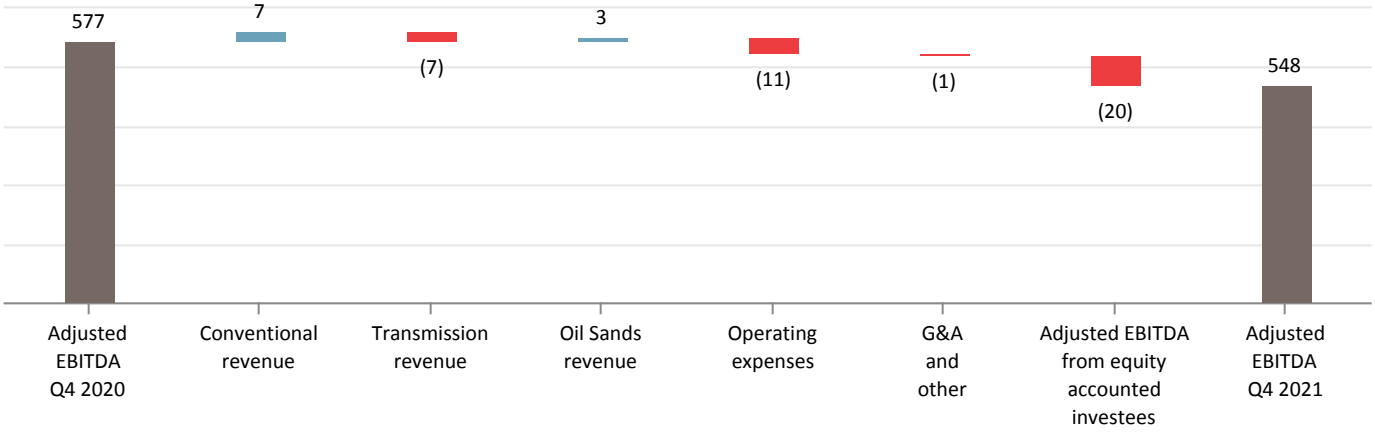
Financial Overview for the Three Months Ended December 31

Results of Operations

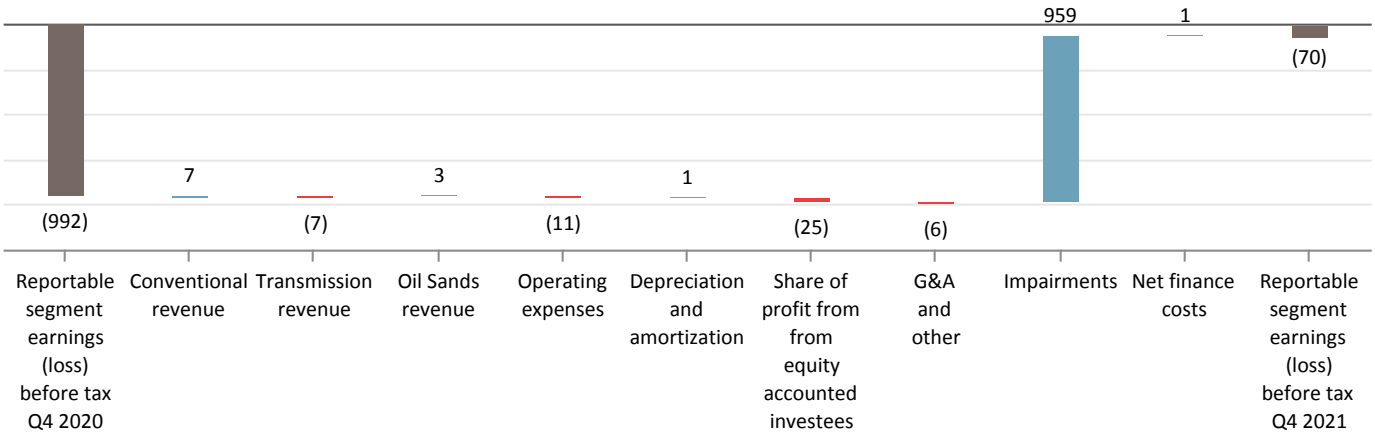
($ millions, except where noted)	**2021**	2020	Change	% Change
Conventional revenue[(1)(2)]	**379**	372	7	2
Transmission revenue[(1)(2)]	**112**	119	(7)	(6)
Oil Sands revenue[(1)(2)]	**115**	112	3	3
Pipelines revenue[(1)]	**606**	603	3	—
Operating expenses[(1)]	**147**	136	11	8
Depreciation and amortization included in operations	**101**	102	(1)	(1)
Share of profit from equity accounted investees	**29**	54	(25)	(46)
Gross profit	**387**	419	(32)	(8)
Reportable segment earnings (loss) before tax	**(70)**	(992)	922	93
Adjusted EBITDA[(3)]	**548**	577	(29)	(5)
Volumes *(mboe/d)*[(4)]	**2,571**	2,730	(159)	(6)
Distributions from equity accounted investees	**51**	80	(29)	(36)

Change in Results		
Conventional revenue[(1)(2)]	●	Consistent with prior period. Higher recoverable costs and tolls, combined with higher contribution from the NEBC Montney Infrastructure were largely offset by a timing difference in the recognition of deferred revenue associated with the Peace Pipeline system.
Transmission revenue[(1)(2)]	●	Consistent with prior period. Lower volumes on the Cochin Pipeline due to a timing difference in the recognition of deferred revenue in the fourth quarter of 2021, combined with the lower U.S. dollar exchange rate was largely offset by higher revenue on the Vantage Pipeline.
Oil Sands revenue[(1)(2)]	●	Consistent with prior period. Higher recoverable costs on the Horizon Pipeline system and Syncrude Pipeline, were largely offset by the expiration of contracts on the Nipisi and Mitsue Pipeline systems.
Operating expenses[(1)]	▼	Increase largely due to a $12 million increase in power costs, of which $9 million was recovered in revenue, as a result of higher power pool prices during the fourth quarter of 2021.
Share of profit from equity accounted investees	▼	Decrease largely due to lower contribution from Ruby as the owners agreed to defer distributions for the fourth quarter of 2021, partially offset by an increased share of profit from Alliance due to a gain recognized on the debt re-financing.
Reportable segment earnings (loss) before tax	▲	Increase largely due to $437 million in impairments recognized during the fourth quarter of 2021 associated with contract expirations on the Nipisi and Mitsue Pipeline systems and at the Edmonton South Rail Terminal compared to $1.4 billion recognized during the fourth quarter of 2020 associated with Pembina's investments in Ruby. This was combined with higher contribution from the NEBC Montney Infrastructure, partially offset by lower contribution from Ruby, combined with lower volumes on the Cochin Pipeline.
Adjusted EBITDA[(3)]	▼	Decrease largely due to the same items impacting reportable segment earnings (loss) before tax, discussed above, net of the decrease in impairments. Included in adjusted EBITDA is $80 million (2020: $70 million) related to Alliance and $14 million (2020: $45 million) related to Ruby.
Volumes *(mboe/d)*[(4)]	▼	Decrease largely driven by lower contracted volumes on Oil Sands pipeline systems and on the Ruby Pipeline, lower deferred revenue volumes on the Peace Pipeline system recognized in the fourth quarter of 2021, combined with lower volumes at AEGS due to third party outages and planned turnarounds in the fourth quarter of 2021, partially offset by higher volumes on the Drayton Valley Pipeline. Volumes include 144 mboe/d (2020: 139 mboe/d) related to Alliance and 60 mboe/d (2020: 101 mboe/d) related to Ruby.
Distributions from equity accounted investees	▼	$51 million (2020: $51 million) from Alliance and no distributions (2020: $29 million) from Ruby. The reduction in distributions from Ruby are due to the same factors impacting share of profit from equity accounted investees discussed above.

Change in Adjusted EBITDA *($ millions)*[2][3]



Change in Reportable Segment Earnings (Loss) Before Tax *($ millions)*[2]



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.
(2) Conventional, transmission and oil sands revenue include revenue generated from Pembina's conventional, transmission and oil sands and heavy oil assets within the Pipelines operating segment, respectively. For further details on Pembina's assets, refer to Pembina's AIF for the year ended December 31, 2021.
(3) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(4) Revenue volumes. See the "Abbreviations" section of this MD&A for definition.

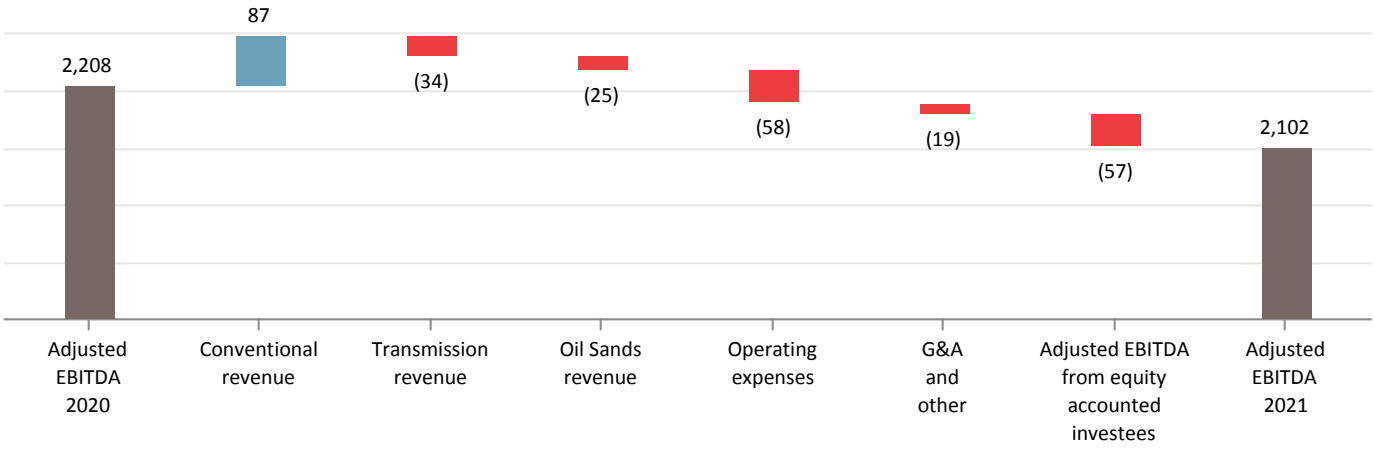
Financial Overview for the 12 Months Ended December 31

Results of Operations

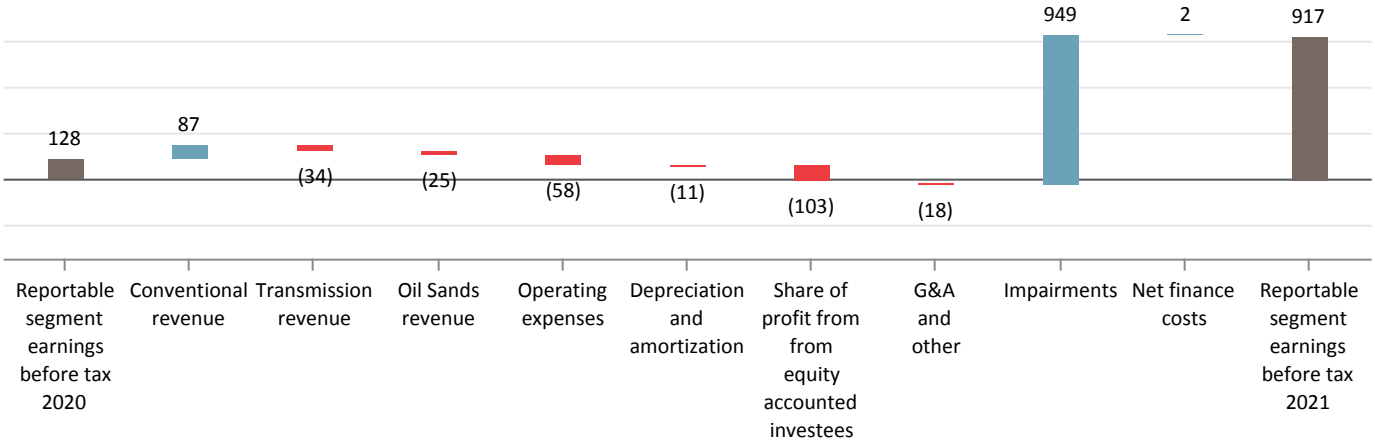
($ millions, except where noted)	**2021**	2020	Change	% Change
Conventional revenue[1][2]	**1,410**	1,323	87	7
Transmission revenue[1][2]	**427**	461	(34)	(7)
Oil Sands revenue[1][2]	**442**	467	(25)	(5)
Total revenue[1]	**2,279**	2,251	28	1
Operating expenses[1]	**556**	498	58	12
Depreciation and amortization included in operations	**413**	402	11	3
Share of profit from equity accounted investees	**124**	227	(103)	(45)
Gross profit	**1,434**	1,578	(144)	(9)
Reportable segment earnings before tax	**917**	128	789	616
Adjusted EBITDA[3]	**2,102**	2,208	(106)	(5)
Volumes *(mboe/d)*[4]	**2,586**	2,623	(37)	(1)
Distributions from equity accounted investees	**226**	339	(113)	(33)

Change in Results		
Conventional revenue[1][2]	▲	Increase largely due to higher volumes on the Peace Pipeline system as higher NGL and crude market prices have resulted in increased upstream activities, combined with higher tolls and recoverable costs.
Transmission revenue[1][2]	▼	Decrease largely due to lower volumes on the Vantage Pipeline as end users sourced their supply from the Redwater Complex, combined with the impact of the lower U.S. dollar exchange rate.
Oil Sands revenue[1][2]	▼	Decrease largely due to lower storage and rail terminal revenue, including fully recovered capital fees at the Edmonton South Rail Terminal in April 2020, the expiration of contracts on the Nipisi and Mitsue Pipeline systems, combined with the sale of the Alberta Crude Terminal effective January 2021, partially offset by higher recoverable costs on the Horizon Pipeline system and Syncrude Pipeline.
Operating expenses[1]	▼	Increase largely due to a $45 million increase in power costs, of which $33 million was recovered in revenue, as a result of higher power pool prices during 2021, combined with higher long-term incentives.
Share of profit from equity accounted investees	▼	Decrease largely due to lower contribution from Ruby as the owners agreed to defer distributions during 2021, partially offset by an increased share of profit from Alliance due to a gain recognized on the debt re-financing and higher interruptible volumes, combined with the impact of the lower U.S. dollar exchange rate.
Reportable segment earnings before tax	▲	Increase largely due to $447 million in impairments recognized during 2021 primarily associated with contract expirations on the Nipisi and Mitsue Pipeline systems and at the Edmonton South Rail Terminal compared to $1.4 billion recognized during the fourth quarter of 2020 associated with Pembina's investments in Ruby. This was combined with higher volumes on the Peace Pipeline system, partially offset by lower contribution from Ruby, lower Transmission and Oil Sands revenue, discussed above, the impact of the lower U.S. dollar exchange rate on Alliance and Ruby, combined with increased operating expenses due to higher power costs not recoverable in revenue and higher long-term incentives.
Adjusted EBITDA[3]	▼	Decrease largely due to the same items impacting reportable segment earnings before tax, discussed above, net of the decrease in impairments. Included in adjusted EBITDA is $282 million (2020: $274 million) related to Alliance and $125 million (2020: $188 million) related to Ruby.
Volumes *(mboe/d)*[4]	▼	Decrease largely driven by lower volumes at AEGS due to third party outages in the second half of 2021 and planned turnarounds in the fourth quarter of 2021, combined with lower contracted volumes on the Ruby Pipeline and Oil Sands pipeline systems, partially offset by higher volumes on the Peace Pipeline system, discussed above. Volumes include 142 mboe/d (2020: 130 mboe/d) related to Alliance and 83 mboe/d (2020: 103 mboe/d) related to Ruby.
Distributions from equity accounted investees	▼	$212 million (2020: $217 million) from Alliance and $13 million (2020: $122 million) from Ruby. The reduction in distributions from Ruby is due to the same factors impacting share of profit from equity accounted investees discussed above.

Change in Adjusted EBITDA *($ millions)*[2][3]



Change in Reportable Segment Earnings Before Tax *($ millions)*[2]



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.

(2) Conventional, transmission and oil sands revenue include revenue generated from Pembina's conventional, transmission and oil sands and heavy oil assets within the Pipelines operating segment, respectively. For further details on Pembina's assets, refer to Pembina's AIF for the year ended December 31, 2021.

(3) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(4) Revenue volumes. See the "Abbreviations" section of this MD&A for definition.

Financial and Operational Overview

	3 Months Ended December 31						12 Months Ended December 31					
	2021			2020			2021			2020		
($ millions, except where noted)	**Volumes[1]**	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]	**Volumes[1]**	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]
Pipelines[3]												
Conventional	**959**	**238**	**298**	993	250	295	**908**	**894**	**1,100**	898	872	1,055
Transmission	**616**	**74**	**172**	684	(1,283)	205	**642**	**292**	**714**	670	(928)	828
Oil Sands	**996**	**(382)**	**78**	1,053	41	77	**1,036**	**(269)**	**288**	1,055	184	325
Total	**2,571**	**(70)**	**548**	2,730	(992)	577	**2,586**	**917**	**2,102**	2,623	128	2,208

(1) Revenue volumes in mboe/d. See the "Abbreviations" section of this MD&A for definition.
(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(3) Includes values attributed to Pembina's conventional, transmission and oil sands and heavy oil assets within the Pipelines operating segment. Refer to Pembina's AIF for the year ended December 31, 2021.

Projects & New Developments[1]

Pipelines continues to focus on the execution of various system expansions. The projects in the following table were recently placed into service.

Significant Projects	In-service Date
NEBC Montney Infrastructure	February 2021
Phase VI Peace Pipeline Expansion	June 2020
Wapiti Condensate Lateral	March 2020

The following outlines the projects and new developments within Pipelines:

As previously announced during the quarter, Phase VII continues to trend under budget and ahead of schedule. The capital cost estimate for the project has been revised lower, by $110 million, to $665 million, and is now anticipated to be in service in mid-2022. The revised cost and schedule reflect highly effective project management, favorable weather conditions and well performing contractors.

Phase VII Peace Pipeline Expansion		
Capital Budget: $665 million	**In-service Date:** Mid-2022	**Status:** Ahead of schedule and under budget
This expansion includes a new 20-inch, approximately 220 km pipeline and two new pump stations or terminal upgrades. Phase VII will add approximately 160 mbpd of incremental capacity upstream of Fox Creek, accessing capacity available on the mainlines downstream of Fox Creek. Construction is underway and progressing according to schedule.		

Phase IX Peace Pipeline Expansion		
Capital Budget: $120 million	**In-service Date:** Second half of 2022	**Status:** On time, trending on budget
This expansion will include new 6-inch and 16-inch pipelines debottlenecking the corridor north of Gordondale, Alberta as well as upgrades at one pump station. In addition, this expansion will see existing pipelines, which are currently batching, converted to single product lines. Phase IX also includes a pump station in the Wapiti-to-Kakwa corridor that was previously part of the Phase VII project scope.		

The previously announced Phase VIII Peace Pipeline Expansion remains deferred. Initial contracts supporting the project remain intact and customers continue to signal plans which will necessitate the incremental capacity. Prior to deferral, Phase VIII had an associated capital cost of approximately $500 million. Value engineering work is ongoing, and Pembina continues to evaluate this project in discussions with its producing customers. Due to ongoing uncertainty around development timing in NEBC stemming from discussion between the British Columbia government and First Nations communities, a reactivation decision is expected in the first half of 2022.

Phase VIII Peace Pipeline Expansion	**Status: Deferred**
This expansion will include 10-inch and 16-inch pipelines in the Gordondale to La Glace corridor as well as six new pump stations or terminal upgrades located between Gordondale and Fox Creek.	

(1) For further details on Pembina's significant assets, including definitions for capitalized terms used herein that are not otherwise defined, refer to Pembina's AIF for the year ended December 31, 2021 filed at www.sedar.com (filed with the U.S. Securities and Exchange Commission at www.sec.gov under Form 40-F) and on Pembina's website at www.pembina.com.

Facilities

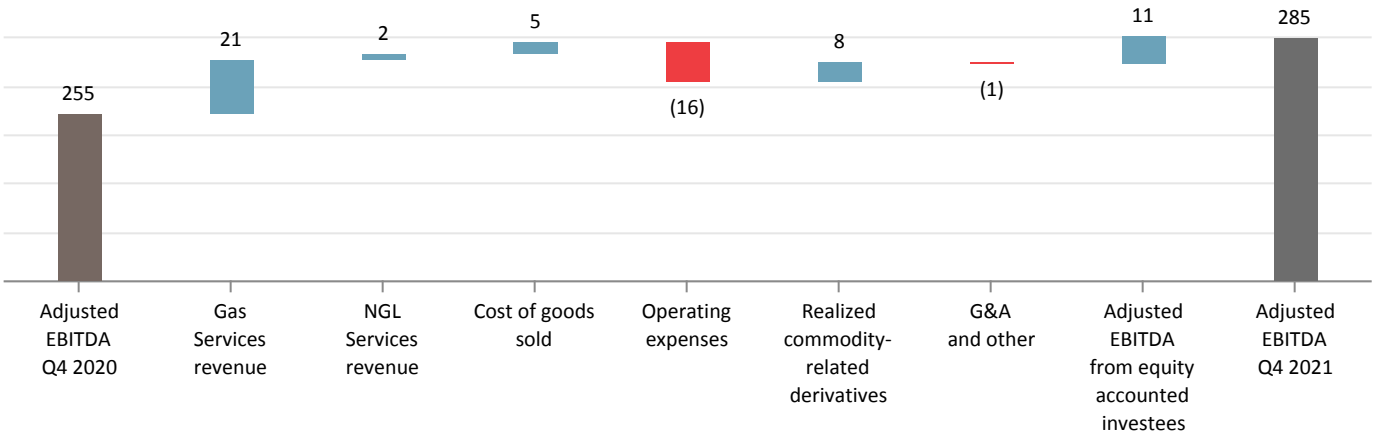
Financial Overview for the Three Months Ended December 31

Results of Operations

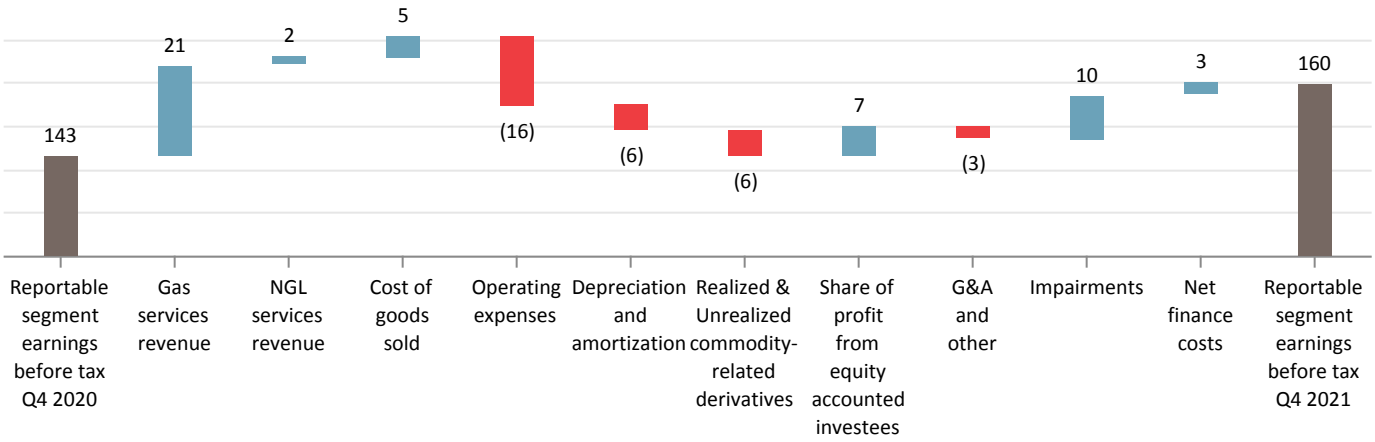
($ millions, except where noted)	**2021**	2020	Change	% Change
Gas Services revenue[(1)(2)]	**172**	151	21	14
NGL Services revenue[(1)(2)]	**177**	175	2	1
Facilities revenue[(1)]	**349**	326	23	7
Operating expenses[(1)]	**127**	111	16	14
Cost of goods sold[(1)]	**(1)**	4	(5)	(125)
Depreciation and amortization included in operations	**56**	50	6	12
Realized gain on commodity-related derivative financial instruments	**(8)**	—	(8)	100
Unrealized loss on commodity-related derivative financial instruments	**24**	10	14	140
Share of profit from equity accounted investees	**21**	14	7	50
Gross profit	**172**	165	7	4
Reportable segment earnings before tax	**160**	143	17	12
Adjusted EBITDA[(3)]	**285**	255	30	12
Volumes *(mboe/d)*[(4)]	**866**	884	(18)	(2)
Distributions from equity accounted investees	**40**	25	15	60

Changes in Results		
Gas Services revenue[(1)(2)]	▲	Increase largely due to higher operating expense recoveries at the Empress Infrastructure as a result of higher power costs, Duvernay III being placed into service in November 2020, the transfer of the Burstall Ethane Storage Facility ("Burstall") from NGL Services to Gas Services in January 2021, combined with higher contracted volumes at Younger.
NGL Services revenue[(1)(2)]	●	Consistent with prior period. Higher revenue from the Prince Rupert Terminal being placed into service in March 2021 was largely offset by the transfer of Burstall to Gas Services in January 2021.
Operating expenses[(1)]	▼	Increase largely due to a $19 million increase in power costs, all of which is recovered in revenue, as a result of higher power pool prices during the fourth quarter of 2021.
Share of profit from equity accounted investees	▲	Increase mainly due to the contribution from the Veresen Midstream Hythe Developments going into service in March 2021, combined with higher volumes on Veresen Midstream's Dawson Assets.
Unrealized loss & realized gain on commodity-related derivatives	▼	Unrealized loss on commodity-related derivatives primarily due to 2021 derivatives being realized during the fourth quarter of 2021, combined with AECO forward prices beginning to normalize during the fourth quarter of 2021 compared to the significant increase in forward prices earlier in the year.
Reportable segment earnings before tax	▲	Increase primarily due to the contribution from new assets placed into service and higher contribution from Veresen Midstream, discussed above, and higher contracted volumes at Younger, combined with the realized gain on commodity-related derivatives.
Adjusted EBITDA[(3)]	▲	Increase primarily due to the same items impacting reportable segment earnings before tax, discussed above. Included in adjusted EBITDA is $53 million (2020: $42 million) related to Veresen Midstream.
Volumes *(mboe/d)*[(4)]	▼	Decrease largely due to lower supply volumes on the East NGL System, which are now being processed by the Empress Infrastructure, and lower volumes at the Redwater Complex following third party outages, partially offset by higher contracted volumes at Younger, higher volumes associated with Duvernay III being placed into service in the fourth quarter of 2020 and higher volumes on the Dawson Assets. Volumes include 90 mboe/d (2020: 75 mboe/d) related to Veresen Midstream.
Distributions from equity accounted investees	▲	$39 million (2020: $25 million) from Veresen Midstream and $1 million (2020: nil) from Fort Corp. The increase in distributions is due to the same reasons impacting share of profit above.

Change in Adjusted EBITDA *($ millions)*[2][3]



Change in Reportable Segment Earnings Before Tax *($ millions)*[2]



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.

(2) Gas services and NGL services revenue include revenue generated from Pembina's gas services and NGL services assets within the Facilities operating segment, respectively. For further details on Pembina's assets, refer to Pembina's AIF for the year ended December 31, 2021.

(3) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(4) Revenue volumes. See the "Abbreviations" section of this MD&A for definition.

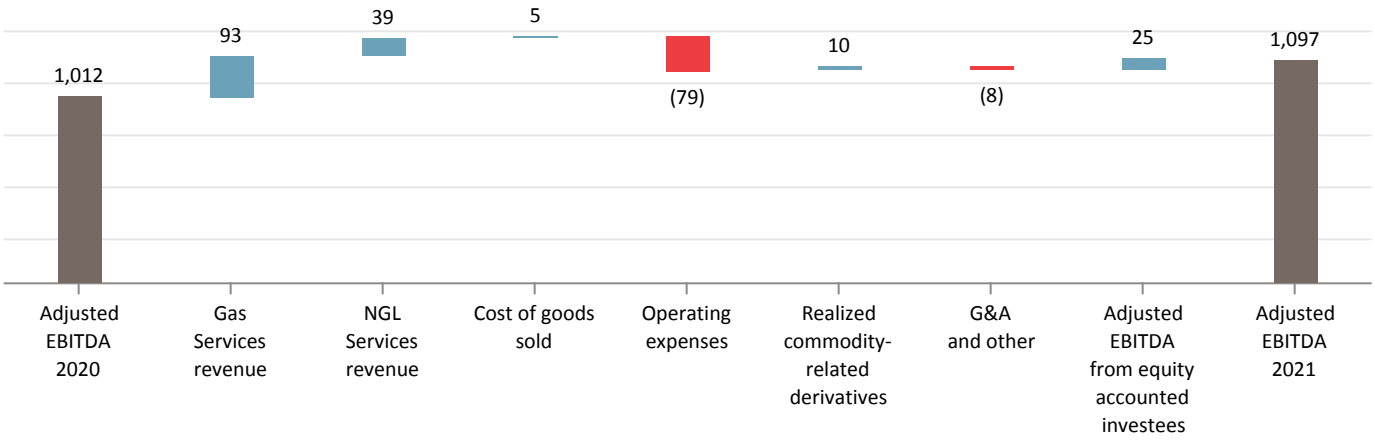
Financial Overview for the 12 Months Ended December 31

Results of Operations

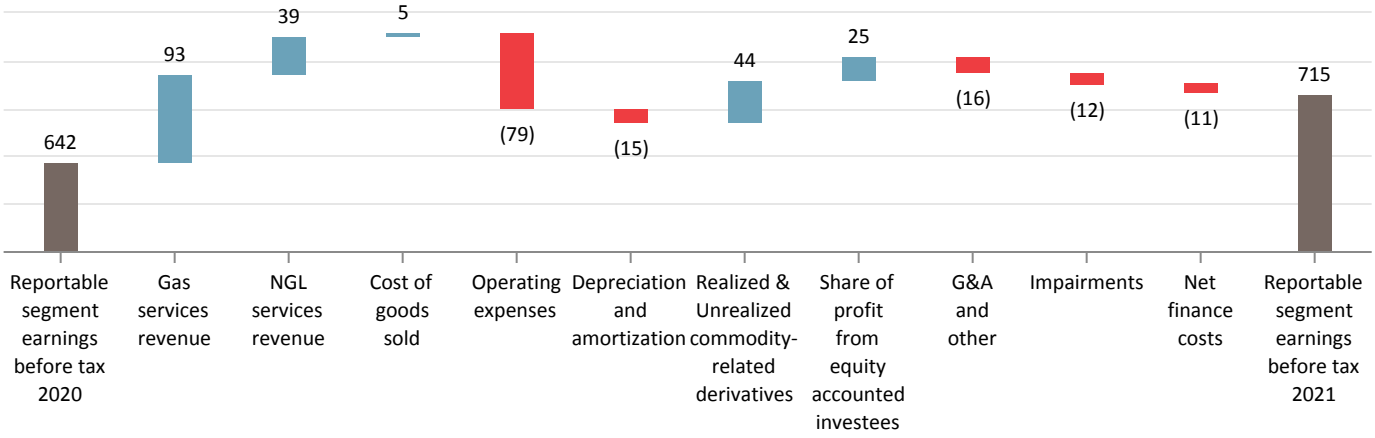
($ millions, except where noted)	2021	2020	Change	% Change
Gas Services revenue[1][2]	**675**	582	93	16
NGL Services revenue[1][2]	**688**	649	39	6
Facilities revenue[1]	**1,363**	1,231	132	11
Operating expenses[1]	**471**	392	79	20
Cost of goods sold[1]	**6**	11	(5)	(45)
Depreciation and amortization included in operations	**214**	199	15	8
Realized gain on commodity-related derivative financial instruments	**(10)**	—	(10)	100
Unrealized gain on commodity-related derivative financial instruments	**(38)**	(4)	(34)	850
Share of profit from equity accounted investees	**80**	55	25	45
Gross profit	**800**	688	112	16
Reportable segment earnings before tax	**715**	642	73	11
Adjusted EBITDA[3]	**1,097**	1,012	85	8
Volumes *(mboe/d)*[4]	**870**	877	(7)	(1)
Distributions from equity accounted investees	**135**	101	34	34

Changes in Results		
Gas Services revenue[1][2]	▲	Increase largely due to Empress Infrastructure and Duvernay III being placed into service in the fourth quarter of 2020, Burstall being transferred from NGL Services to Gas Services in January 2021, increased operating expense recoveries as a result of higher power costs, combined with higher contracted volumes at Younger due to a turnaround in September 2020.
NGL Services revenue[1][2]	▲	Increase primarily due to the Prince Rupert Terminal being placed into service in March 2021, combined with higher operating expense recoveries at the Redwater Complex, partially offset by the transfer of Burstall to Gas Services.
Operating expenses[1]	▼	Increase largely due to operating expenses associated with the additional assets placed into service, discussed above, combined with a $62 million increase in power costs, all of which is recovered in revenue, as a result of higher power pool prices during 2021 compared to 2020.
Share of profit from equity accounted investees	▲	Increase mainly due to the contribution from the Veresen Midstream Hythe Developments going into service in March 2021, combined with higher volumes on Veresen Midstream's Dawson Assets.
Realized & unrealized gain on commodity-related derivatives	▲	Certain gas processing fees are tied to AECO prices and the significant increase in the AECO price has resulted in higher unrealized and realized gains during 2021.
Reportable segment earnings before tax	▲	Increase primarily due to the contribution from new assets placed into service and higher contribution from Veresen Midstream, discussed above, higher revenue at the Redwater Complex, combined with the realized gain on commodity-related derivatives, partially offset by higher operating expenses and higher long-term incentive costs.
Adjusted EBITDA[3]	▲	Increase largely due to the same items impacting reportable segment earnings before tax, discussed above. Included in adjusted EBITDA is $201 million (2020: $174 million) related to Veresen Midstream.
Volumes *(mboe/d)*[4]	▼	Decrease largely due to lower supply volumes on the East NGL System, which are now being processed by the Empress Infrastructure, partially offset by higher revenue volumes associated with Duvernay III being placed into service in the fourth quarter of 2020 and higher volumes at Younger. Volumes include 87 mboe/d (2020: 79 mboe/d) related to Veresen Midstream.
Distributions from equity accounted investees	▲	$131 million (2020: $97 million) from Veresen Midstream and $4 million (2020: $4 million) from Fort Corp. The increase in distributions is due to the same reasons impacting share of profit above.

Change in Adjusted EBITDA *($ millions)*[2][3]



Change in Reportable Segment Earnings Before Tax *($ millions)*[2]



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.

(2) Gas services and NGL services revenue include revenue generated from Pembina's gas services and NGL services assets within the Facilities operating segment, respectively. For further details on Pembina's assets, refer to Pembina's AIF for the year ended December 31, 2021.

(3) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

(4) Revenue volumes. See the "Abbreviations" section of this MD&A for definition.

Financial and Operational Overview

	3 Months Ended December 31						12 Months Ended December 31					
	2021			2020			2021			2020		
($ millions, except where noted)	**Volumes[1]**	**Reportable Segment Earnings Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings Before Tax	Adjusted EBITDA[2]	**Volumes[1]**	**Reportable Segment Earnings Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings Before Tax	Adjusted EBITDA[2]
Facilities[3]												
Gas Services	**677**	**81**	**172**	673	65	138	**669**	**403**	**640**	667	319	558
NGL Services	**189**	**79**	**113**	211	78	117	**201**	**312**	**457**	210	323	454
Total	**866**	**160**	**285**	884	143	255	**870**	**715**	**1,097**	877	642	1,012

(1) Revenue volumes in mboe/d, with natural gas volumes converted to mboe/d from MMcf/d at a 6:1 ratio. See the "Abbreviations" section of this MD&A for definition.
(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(3) Includes values attributed to Pembina's gas and NGL services assets within the Facilities operating segment. For a description of Pembina's gas and NGL assets, refer to Pembina's AIF for the year ended December 31, 2021.

Projects & New Developments[1]

Facilities continues to build-out its natural gas and NGL processing and fractionation assets to service customer demand. The projects in the following table were recently placed into service.

Significant Projects	**In-service Date**
Vancouver Wharves Expansion	June 2021
Prince Rupert Terminal	March 2021
Duvernay III	November 2020
Empress Infrastructure	October 2020
Duvernay Sour Treatment Facilities	March 2020
Veresen Midstream[2]	
Hythe Developments	March 2021

The following outlines the projects and new developments within Facilities:

Empress Cogeneration Facility

Capital Budget: $120 million **In-service Date:** Fourth quarter of 2022 **Status:** Ahead of schedule, on budget

The Empress Cogeneration Facility will use natural gas to generate up to 45 megawatts of electrical power, thereby reducing overall operating costs by providing electricity and heat to the existing Empress NGL Extraction Facility. All the power will be consumed on site, thereby supplying up to 90 percent of the site's electrical requirements. Further, this project will contribute to annual greenhouse gas emission reductions at the Empress NGL Extraction Facility through the utilization of the cogeneration waste heat and the low-emission power generated. Pembina anticipates a reduction of approximately 90,000 tonnes of carbon dioxide equivalent per year based on the current energy demand of the Empress NGL Extraction Facility. Construction is progressing well with the mechanical and electrical contractor on site.

The Prince Rupert Terminal Expansion remains deferred. Engineering of the expansion is well advanced and in conjunction with market dynamics that include customer demand, shipping costs, and North American and international pricing, Pembina expects to make a decision in the first quarter of 2022 whether to proceed with the expansion.

Prince Rupert Terminal Expansion **Status: Deferred**

The Prince Rupert Terminal Expansion will increase the export capacity of the Prince Rupert Terminal.

(1) For further details on Pembina's significant assets, including definitions for capitalized terms used herein that are not otherwise defined, refer to Pembina's AIF for the year ended December 31, 2021 filed at www.sedar.com (filed with the U.S. Securities and Exchange Commission at www.sec.gov under Form 40-F) and on Pembina's website at www.pembina.com.
(2) Veresen Midstream is an equity accounted investee, in which Pembina had a 45 percent interest in as of December 31, 2021. Results from Veresen Midstream impact share of profit from equity accounted investees and proportionally consolidated metrics. See Note 9 to the Consolidated Financial Statements.

Marketing & New Ventures

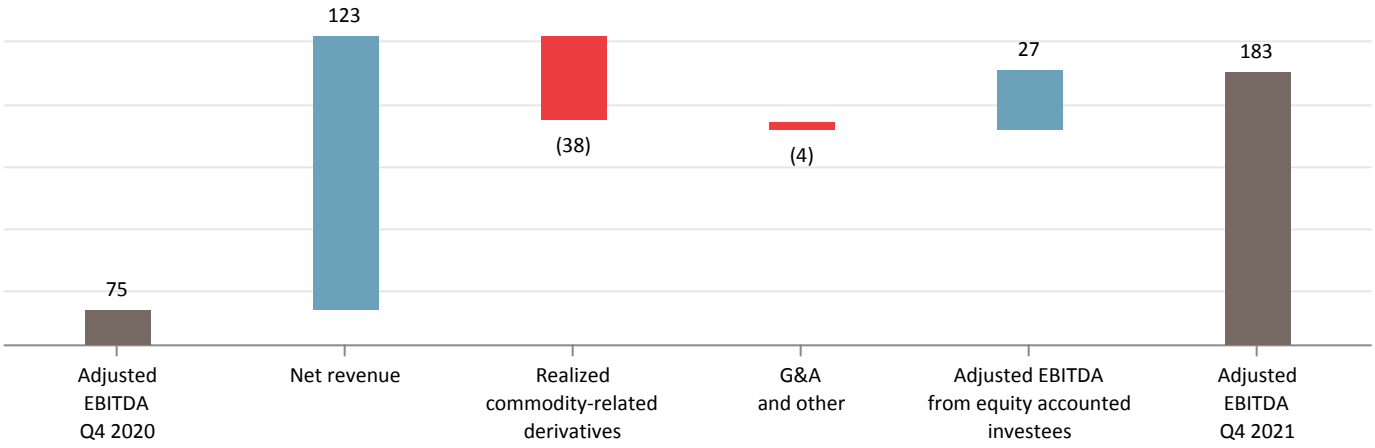
Financial Overview for the Three Months Ended December 31

Results of Operations

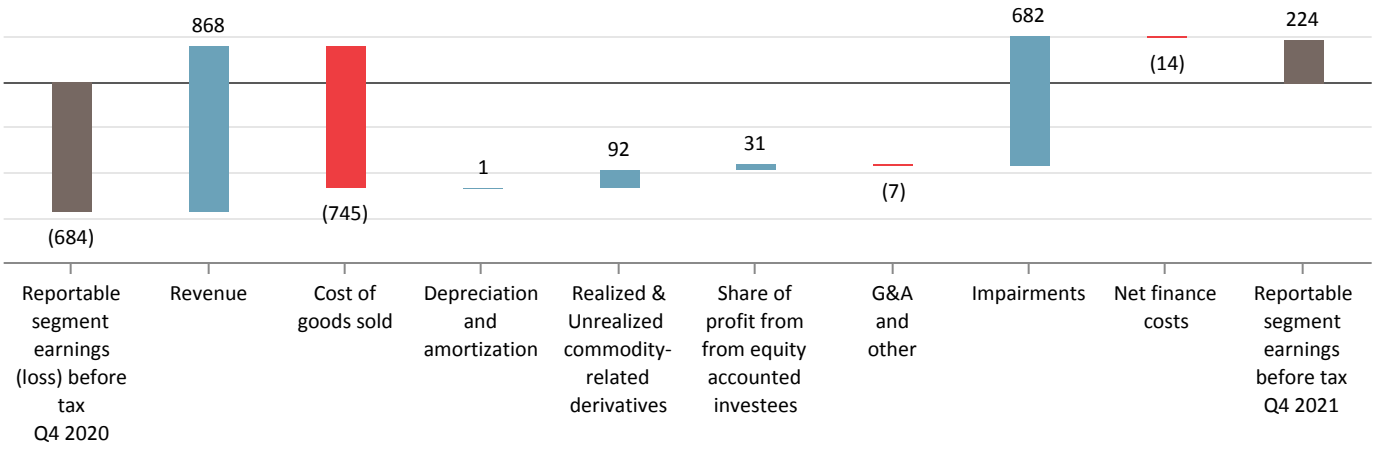
($ millions, except where noted)	**2021**	2020	Change	% Change
Marketing revenue[1]	**1,750**	882	868	98
Cost of goods sold[1]	**1,554**	809	745	92
Net revenue[1][2]	**196**	73	123	168
Depreciation and amortization included in operations	**12**	13	(1)	(8)
Realized loss on commodity-related derivative financial instruments	**44**	6	38	633
Unrealized (gain) loss on commodity-related derivative financial instruments	**(54)**	76	(130)	(171)
Share of profit from equity accounted investees - operations	**33**	2	31	1,550
Impairment in share of profit from equity accounted investees	**—**	(314)	314	100
Gross profit	**227**	(334)	561	168
Reportable segment earnings (loss) before tax	**224**	(684)	908	133
Adjusted EBITDA[2]	**183**	75	108	144
Volumes *(mboe/d)*[3]	**193**	207	(14)	(7)
Distributions from equity accounted investees	**37**	4	33	825

Change in Results		
Net revenue[1][2]	▲	Increase largely due to higher NGL and crude oil market prices, resulting in higher margins, during the fourth quarter of 2021, partially offset by an increase in cost of goods sold related to transportation and terminalling fees associated with the Prince Rupert Terminal being placed into service.
Share of profit from equity accounted investees - operations	▲	Increase largely due to higher revenues at Aux Sable as a result of higher NGL margins and a wider AECO-Chicago natural gas price differential.
Realized loss on commodity-related derivatives	▼	Realized loss due to higher NGL market prices during the fourth quarter of 2021, which also drove higher margins on NGL sales, resulting in a realized loss on NGL-based derivative instruments for the period. Pembina utilizes derivative instruments to stabilize the results of its marketing business.
Unrealized (gain) loss on commodity-related derivatives	▲	Unrealized gain on commodity-related derivatives primarily due to contracts maturing in the period, partially offset by newly added contracts.
Impairment in share of profit from equity accounted investees	▲	During the fourth quarter of 2020, Pembina recognized an impairment for the full amount of its investment in CKPC.
Reportable segment earnings (loss) before tax	▲	Increase largely due to impairment recognized during the fourth quarter of 2020 on Pembina's investment in CKPC and the assets associated with Jordan Cove, combined with higher margins on NGL and crude oil sales as a result of the higher NGL and crude oil prices during the fourth quarter of 2021, and a higher contribution from Aux Sable, discussed above, partially offset by the realized loss on commodity-related derivatives.
Adjusted EBITDA[2]	▲	Increase largely due to the same items impacting reportable segment earnings (loss) before tax, discussed above, net of the impairment recognized during the fourth quarter of 2020. Included in adjusted EBITDA is $38 million (2020: $13 million) related to Aux Sable.
Volumes *(mboe/d)*[3]	▼	Marketed NGL volumes decreased largely due to lower ethane sales caused by third party outages partially offset by increased propane and butane sales volumes. Revenue volumes includes 35 mboe/d (2020: 37 mboe/d) related to Aux Sable.
Distributions from equity accounted investees	▲	$37 million (2020: $4 million) from Aux Sable. Increase largely due to the higher margins at Aux Sable, discussed above.

Change in Adjusted EBITDA *($ millions)*[2]



Change in Reportable Segment Earnings (Loss) Before Tax *($ millions)*



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.
(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(3) Marketed NGL volumes. See the "Abbreviations" section of this MD&A for definition.

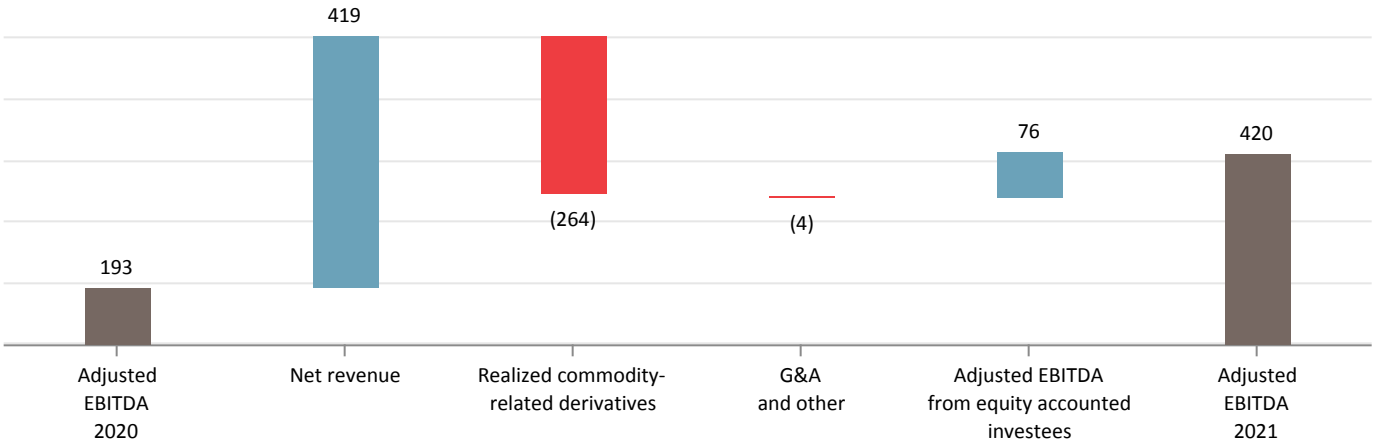
Financial Overview for the 12 Months Ended December 31

Results of Operations

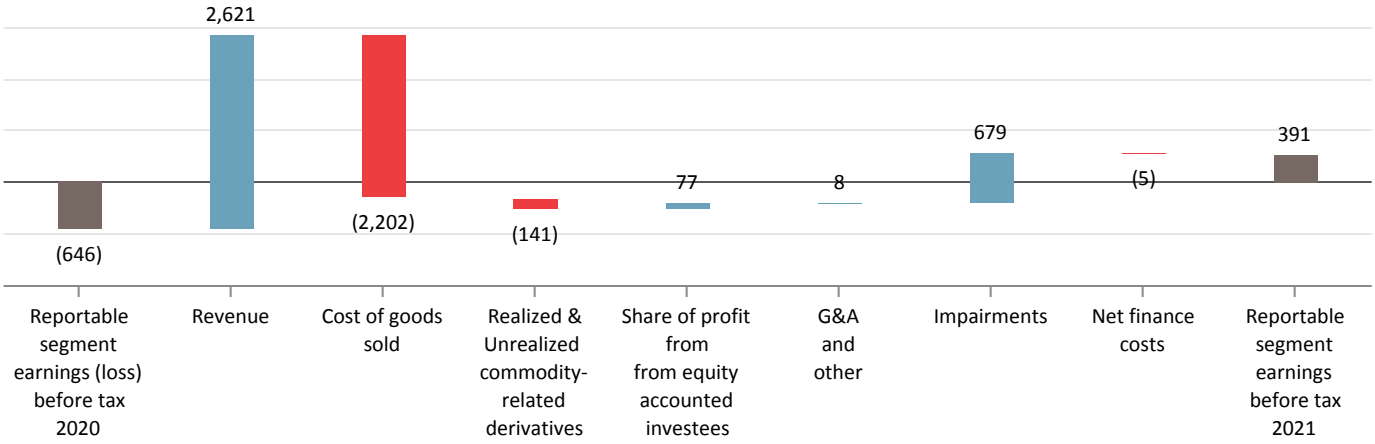
($ millions, except where noted)	2021	2020	Change	% Change
Marketing revenue[1]	**5,577**	2,956	2,621	89
Cost of goods sold[1]	**5,017**	2,815	2,202	78
Net revenue[1][2]	**560**	141	419	297
Depreciation and amortization included in operations	**50**	50	—	—
Realized loss (gain) on commodity-related derivative financial instruments	**210**	(54)	264	489
Unrealized (gain) loss on commodity-related derivative financial instruments	**(35)**	88	(123)	(140)
Share of profit from equity accounted investees - operations	**77**	—	77	—
Impairment in share of profit from equity accounted investees	**—**	(314)	314	100
Gross profit	**412**	(257)	669	260
Reportable segment earnings (loss) before tax	**391**	(646)	1,037	161
Adjusted EBITDA[2]	**420**	193	227	118
Volumes *(mboe/d)*[3]	**190**	182	8	4
Distributions from equity accounted investees	**100**	19	81	426

Change in Results		
Net revenue[1][2]	▲	Increase largely due to higher NGL and crude oil market prices, resulting in higher margins, combined with higher marketed NGL volumes, discussed below, partially offset by an increase in cost of goods sold related to transportation and terminalling fees associated with the Prince Rupert Terminal and Empress Infrastructure being placed into service.
Share of profit from equity accounted investees - operations	▲	Increase largely due to higher revenues at Aux Sable as a result of higher NGL margins and a wider AECO-Chicago natural gas price differential.
Realized loss (gain) on commodity-related derivatives	▼	Realized loss due to higher NGL and crude oil market prices during the year, which also drove higher margins on NGL and crude sales, resulting in a realized loss on NGL- and crude oil-based derivative instruments in the year, compared to realized gains recognized during 2020. Pembina utilizes derivative instruments to stabilize the results of its marketing business.
Unrealized (gain) loss on commodity-related derivatives	▲	Unrealized gain on commodity-related derivatives primarily due to contracts maturing in the year, partially offset by newly added contracts.
Impairment in share of profit from equity accounted investees	▲	During the fourth quarter of 2020, Pembina recognized an impairment for the full amount of its investment in CKPC.
Reportable segment earnings (loss) before tax	▲	Increase largely due to impairment recognized during the fourth quarter of 2020 on Pembina's investment in CKPC and the assets associated with Jordan Cove, combined with higher margins on NGL and crude oil sales as a result of the higher NGL and crude oil prices during 2021 and higher marketed NGL volumes, combined with a higher contribution from Aux Sable, discussed above, partially offset by the realized loss on commodity-related derivatives due to higher NGL market prices.
Adjusted EBITDA[2]	▲	Increase largely due to the same items impacting reportable segment earnings (loss) before tax, discussed above, net of the impairments recognized during the fourth quarter of 2020. Included in adjusted EBITDA is $100 million (2020: $27 million) related to Aux Sable.
Volumes *(mboe/d)*[3]	●	Consistent with prior year. Higher marketed NGL volumes as Pembina monetized previously built up storage positions during the first quarter of 2021 and higher NGL supply volumes in the second and third quarter of 2021 were largely offset by lower ethane sales caused by third party outages during the fourth quarter of 2021. Revenue volumes includes 36 mboe/d (2020: 37 mboe/d) related to Aux Sable.
Distributions from equity accounted investees	▲	$100 million (2020: $19 million) from Aux Sable. Increase largely due to the higher margins at Aux Sable, discussed above.

Change in Adjusted EBITDA *($ millions)*[2]



Change in Reportable Segment Earnings (Loss) Before Tax *($ millions)*



(1) Includes inter-segment transactions. See Note 20 of the Consolidated Financial Statements.
(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(3) Marketed NGL volumes. See the "Abbreviations" section of this MD&A for definition.

Financial and Operational Overview

($ millions, except where noted)	3 Months Ended December 31						12 Months Ended December 31					
	2021			2020			2021			2020		
	Volumes[1]	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]	**Volumes[1]**	**Reportable Segment Earnings (Loss) Before Tax**	**Adjusted EBITDA[2]**	Volumes[1]	Reportable Segment Earnings (Loss) Before Tax	Adjusted EBITDA[2]
Marketing & New Ventures[3]												
Marketing	**193**	**229**	**185**	207	(7)	78	**190**	**407**	**431**	182	50	205
New Ventures[4]	**—**	**(5)**	**(2)**	—	(677)	(3)	**—**	**(16)**	**(11)**	—	(696)	(12)
Total	**193**	**224**	**183**	207	(684)	75	**190**	**391**	**420**	182	(646)	193

(1) Marketed NGL volumes in mboe/d. See the "Abbreviations" section of this MD&A for definition.
(2) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.
(3) Includes values attributed to Pembina's marketing activities and new ventures projects within the Marketing & New Ventures operating segment. For further details on Pembina's marketing activities and projects, refer to Pembina's AIF for the year ended December 31, 2021.
(4) All New Ventures projects have not yet commenced operations and therefore have no volumes.

Projects & New Developments[1]

Pembina's New Ventures group continues to advance business opportunities in liquefied natural gas ("LNG"), low-carbon energy, and petrochemicals. New Ventures is focused on developing opportunities that integrate into Pembina's core businesses, while progressing projects that will extend Pembina's value-chain and benefit stakeholders.

Pembina has formed a partnership agreement with the Haisla First Nation to develop the proposed Cedar LNG Project, a floating LNG facility strategically positioned to leverage Canada's abundant natural gas supply and British Columbia's growing LNG infrastructure to produce industry-leading low-carbon, low-cost Canadian LNG for overseas markets. The Cedar LNG Project is expected to be the largest First Nation-owned infrastructure project in Canada and have one of the cleanest environmental profiles in the world. Cedar LNG's application for an Environmental Assessment Certificate was recently submitted to the British Columbia Environmental Assessment Office, moving the project into the 180-day application review phase. This key project milestone comes following detailed studies, engineering and meaningful engagement with Indigenous and local communities.

In addition, Pembina and TC Energy Corporation ("TC Energy") intend to jointly develop the Alberta Carbon Grid, a world-scale carbon transportation and sequestration system, which will enable Alberta-based industries to effectively manage their greenhouse gas emissions, contribute positively to Alberta's lower-carbon economy and create sustainable long-term value for Pembina and TC Energy stakeholders. Subsequent to year end, on February 1, 2022, Pembina and an affiliate of TC Energy submitted a proposal to jointly develop the Alberta Carbon Grid, in response to the Government of Alberta's request for a full project proposal, detailing Pembina and TC Energy's interest in developing and operating a carbon sequestration hub to serve emissions sources in the Alberta industrial heartland region.

(1) For further details on Pembina's significant assets, including definitions for capitalized terms used herein that are not otherwise defined, refer to Pembina's AIF for the year ended December 31, 2021 filed at www.sedar.com (filed with the U.S. Securities and Exchange Commission at www.sec.gov under Form 40-F) and on Pembina's website at www.pembina.com.

4. LIQUIDITY & CAPITAL RESOURCES

Available Sources of Liquidity

As at December 31 *($ millions)*	**2021**	2020
Working capital[1]	**(1,145)**	(792)
Variable rate debt[2][3]		
Bank debt	**910**	1,534
Variable rate debt swapped to fixed	**(316)**	(318)
Total variable rate loans and borrowings outstanding (weighted average interest rate of 1.1% (2020: 1.6%))	**594**	1,216
Fixed rate debt[2]		
Senior unsecured medium-term notes	**9,700**	9,300
Variable rate debt swapped to fixed	**316**	318
Total fixed rate loans and borrowings outstanding (weighted average interest rate of 3.9% (2020: 3.9%))	**10,016**	9,618
Total loans and borrowings outstanding	**10,610**	10,834
Cash and unutilized debt facilities	**2,469**	2,685
Subordinated hybrid notes (weighted average interest rate of 4.8% (2020: nil))	**600**	—

(1) As at December 31, 2021, working capital included $1 billion (December 31, 2020: $600 million) associated with the current portion of long-term debt.
(2) Face value.
(3) Includes U.S. $250 million variable rate debt outstanding at December 31, 2021 (December 31, 2020: U.S. $250 million).

Pembina currently anticipates that its cash flow from operating activities, the majority of which is derived from fee-based contracts, will be more than sufficient to meet its operating obligations, to fund its dividend and to fund its capital expenditures in the short-term and long-term. Pembina expects to source funds required for debt maturities from cash, its credit facilities and by accessing the capital markets, as required. Based on its successful access to financing in the capital markets over the past several years, Pembina expects to continue to have access to additional funds as required. Refer to "Risk Factors – General Risk Factors – Additional Financing and Capital Resources" in Pembina's MD&A and Note 25 to the Consolidated Financial Statements for more information. Management continues to monitor Pembina's liquidity situation and remains satisfied that the leverage employed in Pembina's capital structure is sufficient and appropriate given the characteristics and operations of the underlying asset base.

Management may adjust Pembina's capital structure as a result of changes in economic conditions or the risk characteristics of the underlying assets. To maintain or modify Pembina's capital structure in the future, Pembina may renegotiate debt terms, repay existing debt, seek new borrowings, issue additional equity or hybrid securities and/or repurchase additional common or preferred shares.

As at December 31, 2021, Pembina's credit facilities consisted of: an unsecured $2.5 billion (December 31, 2020: $2.5 billion) revolving credit facility, which includes a $750 million (December 31, 2020: $750 million) accordion feature and matures in June 2026; an unsecured $500 million (December 31, 2020: $500 million) non-revolving term loan, which matures in August 2022; an unsecured U.S. $250 million (December 31, 2020: U.S. $250 million) non-revolving term loan, which matures in May 2025; and an operating facility of $20 million (December 31, 2020: $20 million), which matures in May 2022 and is typically renewed on an annual basis (collectively, the "Credit Facilities"). There are no mandatory principal repayments due over the term of the Credit Facilities, with principal repayments not due until maturity. Pembina is required to meet certain specific and customary affirmative and negative financial covenants under the indenture governing its medium-term notes and the agreements governing its Credit Facilities, including a requirement to maintain certain financial ratios. See "Liquidity & Capital Resources – Covenants" below for more information. Pembina is also subject to customary restrictions on its operations and activities under the indenture governing its medium-term notes and the agreements governing its Credit Facilities, including restrictions on the granting of security, incurring indebtedness and the sale of its assets.

Financing Activity

On January 25, 2021, Pembina closed a $600 million offering of Fixed-to-Fixed Rate Subordinated Hybrid Notes (the "Series 1 Subordinated Notes"). The Series 1 Subordinated Notes have a fixed 4.80 percent interest rate, payable semi-annually, which resets on January 25, 2031, and on every fifth anniversary thereafter, based on the five-year Government of Canada yield plus: (i) 4.17 percent for the period from, and including, January 25, 2031 to, but excluding January 25, 2051; and (ii) 4.92 percent for the period from, and including, January 25, 2051 to, but excluding January 25, 2081. Pembina used the net proceeds of the offering of the Series 1 Subordinated Notes to fund the redemption of its outstanding Cumulative Redeemable Minimum Rate Reset Class A Preferred Shares, Series 11 ("Series 11 Class A Preferred Shares"), its outstanding Cumulative Redeemable Minimum Rate Reset Class A Preferred Shares, Series 13 ("Series 13 Class A Preferred Shares"), to repay outstanding debt, as well as for general corporate purposes.

On March 25, 2021, Pembina cancelled its $800 million revolving credit facility, which was entered into in April 2020 to ensure additional liquidity and flexibility in Pembina's capital structure in light of the impact of the COVID-19 pandemic on market conditions at the time. No balance was outstanding on the cancellation date.

On April 30, 2021, Pembina completed an extension on its $2.5 billion revolving credit facility, which now matures on June 1, 2026.

On December 10, 2021, Pembina closed an offering of $1.0 billion of senior unsecured medium-term notes. The offering was conducted in two tranches, consisting of the issuance of $500 million in senior unsecured medium-term notes, series 17, having a fixed coupon of 3.53 percent per annum, payable semi-annually and maturing on December 10, 2031; and $500 million in senior unsecured medium-term notes, series 18, having a fixed coupon of 4.49 percent per annum, payable semi-annually and maturing on December 10, 2051.

Covenants

Pembina's financial covenants under the indenture governing its medium-term notes and the agreements governing the Credit Facilities include the following:

Debt Instrument	Financial Covenant[1]	Ratio	Ratio as at December 31, 2021
Senior unsecured medium-term notes	Funded Debt to Capitalization	Maximum 0.70	0.42
Credit Facilities	Debt to Capital	Maximum 0.70	0.43

[1] Terms as defined in relevant agreements.

Pembina was in compliance with all covenants under the note indenture governing its medium-term notes and the agreements governing its Credit Facilities as at December 31, 2021 (December 31, 2020: in compliance).

Credit Risk

Pembina continues to actively monitor and reassess the creditworthiness of its counterparties. While the global economic slowdown has eased, the outlook for the global economic recovery remains uncertain and the potential for volatility in demand for crude oil and other commodities as a result of the ongoing COVID-19 pandemic could increase Pembina's counterparty risk, as uncertainty and the potential for volatility in the demand for crude oil could negatively impact the financial position of Pembina's customers and related parties and their access to credit, capital markets and other sources of liquidity. The majority of Pembina's credit exposure is to investment grade or split-investment grade counterparties. Pembina assesses all counterparties during the on-boarding process and actively monitors credit limits and exposure across the business. Financial assurances to mitigate and reduce risk may include guarantees, letters of credit and cash. Letters of credit totaling $100 million (December 31, 2020: $130 million) were held as at December 31, 2021, primarily in respect of customer trade receivables.

Credit Ratings

The following information with respect to Pembina's credit ratings is provided as such information relates to Pembina's financing costs and liquidity. Specifically, credit ratings affect Pembina's ability to obtain short-term and long-term financing and the cost of such financing. A reduction in the current ratings of Pembina's debt by its rating agencies, particularly a downgrade below investment-grade ratings, could adversely affect Pembina's cost of financing and its access to sources of liquidity and capital. In addition, changes in credit ratings and the associated costs may affect Pembina's ability to enter into normal course derivative or hedging transactions. Credit ratings are intended to provide investors with an independent measure of the credit quality of any issues of securities. The credit ratings assigned by the rating agencies are not recommendations to purchase, hold or sell the securities, nor do the credit ratings comment on the market price or suitability for a particular investor. Any credit rating may not remain in effect for a given period of time or may be revised or withdrawn entirely by a rating agency in the future if, in its judgment, circumstances so warrant.

On April 28, 2021, DBRS Limited ("DBRS") upgraded its ratings for Pembina's senior unsecured medium-term notes to 'BBB (high)', to 'BBB (low)' for the Series 1 Subordinated Notes and to 'Pfd-3 (high)' for each issued series of Pembina's Class A Preferred Shares, other than the Class A Preferred Shares, Series 2021-A (the "Series 2021-A Class A Preferred Shares"), which are deliverable to the holders of the Series 1 Subordinated Notes following the occurrence of certain bankruptcy or insolvency events in respect of Pembina.

The long-term corporate credit rating assigned by S&P Global Ratings ("S&P") on Pembina is 'BBB'. S&P has also assigned a debt rating of 'BBB' to Pembina's senior unsecured medium-term notes, a debt rating of 'BB+' to the Series 1 Subordinated Notes, and a rating of 'P-3 (High)' to each issued series of Pembina's Class A Preferred Shares, other than the Series 2021-A Class A Preferred Shares. S&P affirmed Pembina's credit rating during the second quarter of 2021.

Refer to "Description of the Capital Structure of Pembina – Credit Ratings" in the AIF for further information.

Contractual Obligations and Off-Balance Sheet Arrangements

Contractual Obligations

Pembina had the following contractual obligations outstanding at December 31, 2021:

Contractual Obligations[1]	Payments Due By Period				
($ millions)	**Total**	**Less than 1 year**	**1 – 3 years**	**3 – 5 years**	**After 5 years**
Leases[2]	978	113	181	152	532
Long-term debt[3]	17,409	1,519	2,002	2,146	11,742
Construction commitments[4]	1,042	435	32	24	551
Other	531	92	120	74	245
Total contractual obligations	19,960	2,159	2,335	2,396	13,070

(1) Pembina enters into product purchase agreements and power purchase agreements to secure supply for future operations. Purchase prices of both NGL and power are dependent on current market prices. Volumes and prices for NGL and power contracts cannot be reasonably determined, and therefore, an amount has not been included in the contractual obligations schedule. Product purchase agreements range from one to 9 years and involve the purchase of NGL products from producers. Assuming product is available, Pembina has secured between 18 and 190 mbpd of NGL each year up to and including 2030. Power purchase agreements range from one to 23 years and involve the purchase of power from electrical service providers. Pembina has secured up to 79 megawatts per day each year up to and including 2045.

(2) Includes terminals, rail, office space, land and vehicle leases.

(3) Includes loans and borrowings, subordinated hybrid notes and interest payments on Pembina's senior unsecured medium-term notes and subordinated hybrid notes. Excludes deferred financing costs.

(4) Excluding significant projects that are awaiting regulatory approval, projects which Pembina is not committed to construct, and projects that are executed by equity accounted investees.

Off-Balance Sheet Arrangements

As at December 31, 2021, Pembina does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on Pembina's financial condition, results of operations, liquidity or capital expenditures.

Letters of Credit

Pembina has provided letters of credit to various third parties in the normal course of conducting business. The letters of credit include guarantees to counterparties for product purchases and sales, transportation services, utilities, engineering and construction services. The letters of credit have not had and are not expected to have a material impact on Pembina's financial position, earnings, liquidity or capital resources. As at December 31, 2021, Pembina had $135 million (December 31, 2020: $91 million) in letters of credit issued.

5. SHARE CAPITAL

Common Shares

On February 25, 2021, the Toronto Stock Exchange ("TSX") accepted the Company's notice of intention to commence a normal course issuer bid ("NCIB") that allows the Company to repurchase, at its discretion, up to approximately 27.5 million common shares through the facilities of the TSX, the New York Stock Exchange and/or alternative Canadian trading systems or as otherwise permitted by applicable securities law, subject to certain restrictions on the number of common shares that may be purchased on a single day. Common shares purchased by the Company will be cancelled. The NCIB commenced March 2, 2021 and will terminate on March 1, 2022 or on such earlier date as the Company has purchased the maximum number of common shares permitted pursuant to the notice of intention.

The following table summarizes Pembina's share repurchases under its NCIB:

For the years ended December 31 *(millions, except as noted)*	**2021**	**2020**
Number of common shares repurchased for cancellation *(thousands)*	450	—
Average price per share	$37.77	—
Total cost[(1)]	17	—

(1) Total cost includes $13 million (2020: nil) charged to share capital and $4 million (2020: nil) charged to deficit.

Common Share Dividends

Common share dividends are payable if, as and when declared by Pembina's Board of Directors. The amount and frequency of dividends declared and payable is at the discretion of Pembina's Board of Directors, which considers earnings, cash flow, capital requirements, the financial condition of Pembina and other relevant factors when making its dividend determination.

Preferred Shares

On January 25, 2021, in connection with the offering of the Series 1 Subordinated Notes, Pembina issued 600,000 Series 2021-A Class A Preferred Shares, to Computershare Trust Company of Canada, to be held in trust as treasury shares to satisfy Pembina's obligations under the indenture governing the Series 1 Subordinated Notes.

On March 1, 2021, Pembina redeemed all of the 6.8 million issued and outstanding Series 11 Class A Preferred Shares for a redemption price equal to $25.00 per Series 11 Class A Preferred Share, less taxes required to be deducted or withheld by the Company.

On June 1, 2021, Pembina redeemed all of the 10 million issued and outstanding Series 13 Class A Preferred Shares for a redemption price equal to $25.00 per Series 13 Class A Preferred Shares, less taxes required to be deducted or withheld by the Company.

Preferred Share Dividends

Other than in respect of the Series 2021-A Class A Preferred Shares, the holders of Pembina's Class A Preferred Shares are entitled to receive fixed cumulative dividends. Dividends on the Series 1, 3, 5, 7, 9 and 21 Class A Preferred Shares are payable quarterly on the first day of March, June, September and December, if, as and when declared by the Board of Directors of Pembina. Dividends on the Series 15, 17 and 19 Class A Preferred Shares are payable on the last day of March, June, September and December in each year, if, as and when declared by the Board of Directors of Pembina. Dividends on the Series 23 and 25 Class A Preferred Shares are payable on the 15th day of February, May, August and November in each year, if, as and when declared by the Board of Directors of Pembina.

Dividends are not payable on the Series 2021-A Class A Preferred Shares, nor shall any dividends accumulate or accrue, prior to delivery to the holders of the Series 1 Subordinated Notes following the occurrence of certain bankruptcy or insolvency events in respect of Pembina. Thereafter, dividends on the Series 2021-A Class A Preferred Shares are payable on the 25th day of January and July in each year, if, as and when declared by the Board of Directors.

Outstanding Share Data

Issued and outstanding *(thousands)*[1]	February 18, 2022
Common shares	**550,338**
Stock options	**19,437**
Stock options exercisable	**11,330**
Series 1 Class A Preferred Shares	**10,000**
Series 3 Class A Preferred Shares	**6,000**
Series 5 Class A Preferred Shares	**10,000**
Series 7 Class A Preferred Shares	**10,000**
Series 9 Class A Preferred Shares	**9,000**
Series 15 Class A Preferred Shares	**8,000**
Series 17 Class A Preferred Shares	**6,000**
Series 19 Class A Preferred Shares	**8,000**
Series 21 Class A Preferred Shares	**16,000**
Series 23 Class A Preferred Shares	**12,000**
Series 25 Class A Preferred Shares	**10,000**

(1) Pembina issued 600,000 Series 2021-A Class A Preferred shares to the Computershare Trust Company of Canada, to be held in trust to satisfy its obligations under the indenture governing the Series 1 Subordinated Notes, in connection with the issuance of the Series 1 Subordinated Notes.

6. CAPITAL EXPENDITURES

	3 Months Ended December 31		12 Months Ended December 31	
($ millions)	**2021**	2020	**2021**	2020
Pipelines	**123**	76	**475**	587
Facilities	**34**	75	**136**	370
Marketing & New Ventures	**6**	4	**21**	38
Corporate and other projects	**13**	6	**26**	34
Total capital expenditures[(1)(2)]	**176**	161	**658**	1,029

(1) Includes $28 million for the three months ended December 31, 2021 (2020: $16 million) related to non-recoverable sustainment activities.
(2) Includes $77 million for the twelve months ended December 31, 2021 (2020: $92 million) related to non-recoverable sustainment activities.

In both 2021 and 2020, Pipeline capital expenditures continued to be primarily related to Pembina's Peace Pipeline system expansion projects with increased spending on the NEBC Montney Infrastructure in 2021. In 2021, Facilities capital expenditures were largely related to the Prince Rupert Terminal, continued expansion at the Empress Co-generation Facility, and Vancouver Wharves. In 2020, Facilities capital expenditures included construction of Duvernay III, the Empress Co-generation Facility and the Prince Rupert Terminal. Marketing & New Ventures had capital expenditures primarily related to offshore LNG projects in 2021 and the Jordan Cove LNG project in 2020. Corporate capital expenditures relate to IT infrastructure and systems development.

Contributions to Equity Accounted Investees

	3 Months Ended December 31		12 Months Ended December 31	
($ millions)	**2021**	2020	**2021**	2020
Alliance	**299**	—	**299**	—
Aux Sable	**1**	—	**2**	3
Veresen Midstream	**—**	—	**29**	69
CKPC	**—**	—	**—**	152
Cedar	**5**	—	**5**	—
Total	**305**	—	**335**	224

Alliance contributions in 2021 are the result of early bond redemptions on December 10, 2021, see the "Selected Equity Accounted Investee Information - Financing Activities for Equity Accounted Investees" section for further details.

Contributions made to Veresen Midstream during both 2021 and 2020 were largely related to the construction of the Hythe Developments, which was placed into service in March 2021.

There were no contributions made to CKPC during 2021, following the indefinite suspension of the propane dehydration ("PDH") plant and polypropylene upgrading facility ("PDH/PP Facility") announced in the fourth quarter of 2020.

7. SELECTED QUARTERLY INFORMATION

Selected Quarterly Operating Information

(mboe/d)	2021				2020			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Volumes[1][2]								
Pipelines								
Conventional Pipelines	**959**	918	892	862	993	863	834	902
Transmission Pipelines	**616**	595	685	674	684	661	668	668
Oil Sands Pipelines	**996**	1,050	1,050	1,051	1,053	1,056	1,053	1,059
Facilities								
Gas Services	**677**	660	662	677	673	657	658	678
NGL Services	**189**	188	211	218	211	214	214	201
Total	**3,437**	3,411	3,500	3,482	3,614	3,451	3,427	3,508

(1) Revenue volumes. See the "Abbreviations" section of this MD&A for definition.
(2) Includes Pembina's proportionate share of volumes from equity accounted investees.

Deferred Take-or-pay Revenue

($ millions)	2021				2020			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Pipelines								
Opening balance	**21**	32	22	3	42	45	22	8
Revenue deferred	**43**	48	45	42	52	66	53	40
Revenue recognized	**(61)**	(59)	(35)	(23)	(91)	(69)	(30)	(26)
Ending take-or-pay contract liability balance	**3**	21	32	22	3	42	45	22
Facilities								
Opening balance	**—**	3	1	—	—	2	1	—
Revenue deferred	**—**	—	2	1	—	1	1	1
Revenue recognized	**—**	(3)	—	—	—	(3)	—	—
Ending take-or-pay contract liability balance	**—**	—	3	1	—	—	2	1

Quarterly Financial Information

($ millions, except where noted)	2021				2020			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	**2,560**	2,149	1,902	2,016	1,680	1,496	1,229	1,548
Net revenue[(1)]	**1,084**	961	894	999	954	849	776	865
Operating expenses	**206**	187	186	182	201	178	154	179
Realized loss (gain) on commodity-related derivative financial instruments	**36**	43	33	88	6	(7)	(36)	(17)
Share of profit (loss) from equity accounted investees	**83**	75	52	71	(244)	62	66	84
Gross profit	**785**	682	550	630	247	568	460	733
Earnings (loss)	**80**	588	254	320	(1,216)	323	258	319
Earnings (loss) per common share – basic and diluted *(dollars)*	**0.08**	1.01	0.39	0.51	(2.28)	0.52	0.40	0.51
Cash flow from operating activities	**697**	913	584	456	766	434	642	410
Cash flow from operating activities per common share – basic *(dollars)*	**1.27**	1.66	1.06	0.83	1.39	0.78	1.17	0.75
Adjusted cash flow from operating activities[(1)]	**734**	786	538	582	603	524	586	576
Adjusted cash flow from operating activities per common share – basic *(dollars)*[(1)]	**1.33**	1.43	0.98	1.06	1.10	0.95	1.07	1.05
Common shares outstanding *(millions)*:								
Weighted average – basic	**550**	550	550	550	550	550	550	549
Weighted average – diluted	**551**	551	551	550	550	550	550	549
End of period	**550**	550	550	550	550	550	550	550
Common share dividends declared	**346**	347	347	346	346	346	347	346
Dividends per common share	**0.63**	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Preferred share dividends declared	**33**	31	35	36	38	38	37	38
Capital expenditures	**176**	209	146	127	161	174	211	483
Contributions to equity accounted investees	**305**	18	—	12	—	28	2	194
Distributions from equity accounted investees	**128**	106	112	115	109	111	116	123
Adjusted EBITDA[(1)]	**970**	850	778	835	866	796	789	830

(1) Refer to the "Non-GAAP & Other Financial Measures" section of this MD&A.

During the periods in the table above, Pembina's financial and operating results were impacted by the following factors and trends:

- Impairments recognized on Pembina's interests in Ruby, CKPC and the assets associated with Jordan Cove in the fourth quarter of 2020 and on certain assets in Pipelines as a result of contract expirations in the fourth quarter of 2021;
- The COVID-19 pandemic and the resulting decrease in demand for commodities starting in the second quarter of 2020, which led to a significant decline in global energy prices and a reduction in capital spending budgets by Pembina and its customers in 2020, and the subsequent recovery in demand for commodities and global energy prices in 2021;
- Volatility in the AECO-Chicago natural gas price differential, power pool prices and foreign exchange rates impacting operating results;
- New large-scale growth projects across Pembina's business being placed into service;
- Volatility in commodity market prices impacting margins within the marketing business, partially mitigated through Pembina's risk management program;
- Higher net finance costs impacting earnings associated with debt related to financing growth projects, volatility in foreign exchange rates and volatility in Pembina's share price impacting incentive costs;
- Contract expiries on certain assets; and
- The receipt and associated tax of the Arrangement Termination Payment.

8. SELECTED EQUITY ACCOUNTED INVESTEE INFORMATION

Loans and Borrowings of Equity Accounted Investees

Under equity accounting, the assets and liabilities of an investment are net into a single line item in the Consolidated Statement of Financial Position, "Investments in Equity Accounted Investees". To assist readers' understanding and to evaluate the capitalization of Pembina's investments, loans and borrowings associated with investments in equity accounted investees are presented below based on Pembina's proportionate ownership in such investments, as at December 31, 2021. In addition, certain of the equity accounted investees have borrowing arrangements with an amortization structure, thereby necessitating periodic repayments of principal. These repayments occur prior to the distribution of residual cash flow to Pembina. The loans and borrowings and amortization schedules are presented below and classified by the division in which the results for the investment are reported. Please refer to the "Abbreviations" section for a summary of Pembina's investments in equity accounted investees and the division in which their results are reported.

As at December 31 *($ millions)*[1]	**2021**	2020
Pipelines	**642**	926
Facilities	**1,214**	1,200
Marketing & New Ventures	**1**	—
Total	**1,857**	2,126

[1] Balances reflect Pembina's ownership percentage of the outstanding balance face value.

Amortization Schedule of Loans and Borrowings of Equity Accounted Investees

($ millions)[1]	**12 Months Ended December 31, 2021**	**2022**	**2023**	**2024**	**2025**	**2026+**
Pipelines	**376**	303	3	318	2	16
Facilities	**12**	36	36	1,142	—	—
Marketing & New Ventures	**—**	1	—	—	—	—
Total	**388**	340	39	1,460	2	16

[1] Balances reflect Pembina's ownership percentage of the outstanding balance face value.

Financing Activities for Equity Accounted Investees

On April 19, 2021, Ruby fully repaid the $16 million outstanding on its term loan.

A wholly-owned subsidiary of Ruby has debt obligations in the form of non-recourse, asset level financing. Specifically, the subsidiary has U.S. $475 million of senior notes outstanding, which come due April 1, 2022. Pembina presently does not expect the subsidiary to have adequate funds on hand to retire the senior notes when they come due. Management is currently evaluating options to satisfy this debt upon maturity.

On December 10, 2021, Alliance redeemed all of its issued and outstanding senior notes, for a total of $367 million and U.S. $175 million.

On December 10, 2021, Alliance issued a new syndicated unsecured credit agreement comprising of a $315 million non-revolving term loan facility, a $30 million revolving facility, a U.S. $250 million non-revolving term loan facility and a U.S. $30 million revolving facility. The credit facilities have a maturity date of December 10, 2024.

Commitments to Equity Accounted Investees

Pembina has commitments to provide contributions to certain equity accounted investees based on annual budgets approved by the joint venture partners and contractual agreements.

Credit Risk for Equity Accounted Investees

At December 31, 2021, Pembina's various equity accounted investees held letters of credit totaling $73 million (December 31, 2020: $105 million) primarily in respect of customer trade receivables.

Cedar LNG Acquisition

On June 4, 2021, Pembina acquired a 49.9 percent interest in a joint venture with the Haisla Nation to develop the Cedar LNG Project, a LNG facility located on the coast of British Columbia within the Douglas Channel on Haisla-owned land. The purchase price of $125 million was allocated to goodwill as the net fair value of the identifiable assets and liabilities is nil. Pembina's investment of $130 million at December 31, 2021 includes $70 million of accrued contingent consideration payable on achievement of certain conditions. Under the terms of the agreements, Pembina has commitments to make additional payments on a positive final investment decision as well as contributions to fund development costs and annual operating budgets.

9. OTHER

Selected Annual Financial Information

($ millions, except where noted)	**2021**	2020	2019
Revenue	**8,627**	5,953	6,372
Earnings (loss)	**1,242**	(316)	1,507
Per common share - basic *(dollars)*	**2.00**	(0.86)	2.69
Per common share - diluted *(dollars)*	**1.99**	(0.86)	2.68
Total assets	**31,456**	31,416	32,755
Total non-current liabilities	**14,703**	14,620	14,438
Common share dividends declared *($ per share)*	**2.52**	2.52	2.36
Preferred share dividends declared	**135**	151	126

See the "Quarterly Financial Information" section for the factors impacting years ended December 31, 2021 and 2020. The decrease in revenues, earnings and earnings per common share (basic and diluted) between 2019 and 2020 were largely due to the impacts of the COVID-19 pandemic and resulting significant decline in global energy prices, combined with impairments recognized in Pembina's investment in Ruby, CKPC and the assets associated with Jordan Cove in the fourth quarter of 2020, partially offset by additional assets and loans and borrowings associated with the Kinder Acquisition and the results from new assets going into service and a significant deferred tax recovery associated with the impairment mentioned above.

Related Party Transactions

Pembina enters into transactions with related parties in the normal course of business and on terms equivalent to those that prevail in arm's length transactions, unless otherwise noted. Pembina contracts capacity from its equity accounted investees, advances funds to support operations, provides letters of credit, including financial guarantees, and provides services, on a cost recovery basis, to investments in equity accounted investees. These services are provided under separate consulting services agreements. For more information on these transactions, refer to Note 28 to the Consolidated Financial Statements.

Risk Management

Pembina's risk management strategies, policies and limits, ensure risks and exposures are aligned to its business strategy and risk tolerance. Pembina's Board of Directors is responsible for providing risk management oversight at Pembina and oversees how management monitors compliance with Pembina's risk management policies and procedures and reviews the adequacy of this risk framework in relation to the risks faced by Pembina.

Pembina's financial risks are consistent with those discussed in Note 25 of the Consolidated Financial Statements. Pembina has exposure to counterparty credit risk, liquidity risk and market risk. As at December 31, 2021, the Company has entered into certain financial derivative contracts in order to manage commodity price, foreign exchange and interest rate risk. These instruments are not used for trading or speculative purposes. For more information on Pembina's derivative instruments, refer to Note 25 to the Consolidated Financial Statements.

Pension Liability

Pembina maintains defined contribution plans and defined benefit pension plans for employees and retirees. The defined benefit plans include a funded registered plan for all qualified employees and an unfunded supplemental retirement plan for those employees affected by the Canada Revenue Agency maximum pension limits. At the end of 2021, the pension plans carried a net obligation of $6 million (2020: $44 million). At December 31, 2021, plan obligations amounted to $274 million (2020: $296 million) compared to plan assets of $268 million (2020: $252 million). In 2021, the pension plans' expense was $30 million (2020: $20 million). Pembina's contributions to the pension plans totaled $23 million in 2021 (2020: $23 million).

Effective January 1, 2021, Pembina revised the eligibility requirements for the defined benefit plan. Employees with an age plus years of service of 40 at January 1, 2021 will remain eligible for the defined benefit plan, when their age plus years of service reaches 50. All other employees will remain in the defined contribution plan.

Disclosure Controls and Procedures and Internal Control over Financial Reporting

Disclosure Controls and Procedures

Pembina maintains disclosure controls and procedures ("DC&P") designed to provide reasonable assurance that information required to be disclosed in Pembina's annual filings, interim filings and other reports filed or submitted by it under applicable securities laws is recorded, processed, summarized and reported accurately and in the time periods specified under such securities laws, and include controls and procedures designed to ensure such information is accumulated and communicated to Pembina's management, including its certifying officers, as appropriate to allow timely decisions regarding required disclosure. As at December 31, 2021, an evaluation of the effectiveness of the design and operation of Pembina's DC&P, as defined in Rule 13a – 15(e) and 15(d) – 15(e) under the United States *Securities Exchange Act of 1934*, as amended (the "Exchange Act") and National Instrument 52-109 *Certification of Disclosure in Issuer's Annual and Interim Filings* ("NI 52-109"), was carried out by management, including the President and Chief Executive Officer ("CEO") and the interim Chief Financial Officer ("CFO"). Based on the evaluation, the CEO and CFO have concluded that the design and operation of Pembina's DC&P were effective as at December 31, 2021 to ensure that material information relating to Pembina is made known to the CEO and CFO by others.

It should be noted that while the CEO and CFO believe that Pembina's disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that Pembina's disclosure controls and procedures will prevent all errors or fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Management's Annual Report on Internal Control over Financial Reporting

Pembina maintains internal control over financial reporting which is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a – 15(e) and 15(d) – 15(e) under the Exchange Act and NI 52-109.

Under the supervision and with the participation of our CEO and our CFO, management has conducted an evaluation of the effectiveness of our internal control over financial reporting, as at December 31, 2021 based on the framework set forth in Internal Control – Integrated Framework issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on management's assessment as at December 31, 2021, the CEO and CFO have concluded that Pembina's internal control over financial reporting is effective.

Due to its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of Pembina's financial statements would be prevented or detected. Further, the evaluation of the effectiveness of internal control over financial reporting was made as at a specific date, and continued effectiveness in future periods is subject to the risks that controls may become inadequate.

The effectiveness of internal control over financial reporting as at December 31, 2021 was audited by KPMG LLP, an independent registered public accounting firm, as stated in their Report of Independent Registered Public Accounting Firm, which is included in the Consolidated Financial Statements.

Changes in Internal Control over Financial Reporting

Other than the remediation of the material weakness described below, there has been no change in Pembina's internal control over financial reporting that occurred during the year ended December 31, 2021 that has materially affected, or are reasonably likely to materially affect, Pembina's internal control over financial reporting.

Remediation of Material Weakness

As at September 30, 2021, management identified a material weakness related to controls over contract assessment in its Marketing business. Specifically, the Company did not have controls to identify all contracts where an accounting assessment was required and as a result lacked analysis of all relevant contract terms required to make the assessment in the Marketing business. Because of the deficiency, the Company presented revenue and cost of goods sold for certain crude contracts in the Marketing and New Ventures Division on a gross basis that should have been recorded on a net basis.

Management restated revenue and cost of goods sold for the comparative years ended December 31, 2020 and December 31, 2019 with no impact on earnings, cash flows or financial position. Refer to Note 3 to the Consolidated Financial Statements as at and for the year ended December 31, 2020 for details of the restatement.

Over the course of the fourth quarter of 2021, the Company has remediated the control deficiency by designing and implementing controls associated with enhanced contract analysis and revising the processes to assess accounting implications for complex contracts and to identify contracts requiring consultation with internal experts to assist in the evaluation of technical accounting matters. Management has supervised an evaluation of the remedial measures implemented by the Company in the fourth quarter of 2021. Based on this evaluation, including testing the operating effectiveness of the controls addressing the material weakness, management have concluded that the previously identified material weakness relating to the operating effectiveness of the Company's disclosure controls and procedures and its internal controls over financial reporting has been remediated as at December 31, 2021.

10. ACCOUNTING POLICIES & ESTIMATES

Changes in Accounting Policies

The accounting policies used in preparing the Consolidated Financial Statements are described in Note 3. There were no new accounting standards or amendments to existing standards adopted in the 12 months ended December 31, 2021 that are expected to have a material impact on Pembina's financial statements.

New Standards and Interpretations Not Yet Adopted

The International Accounting Standards Board have issued a standard and amendments to existing standards that are effective for periods on or after January 1, 2022, with early application permitted. Assessment of the impacts of these standards is ongoing, however, no material impacts on Pembina's Consolidated Financial Statements have been identified.

- Onerous Contracts - Cost of Fulfilling a Contract (Amendments to IAS 37);
- Updating a Reference to the Conceptual Framework (Amendments to IFRS 3);
- Annual Improvements to IFRS Standards 2018-2020;
- Classification of Liabilities as Current or Non-Current (Amendments to IAS 1);
- Disclosure Initiative – Accounting Policies (Amendments to IAS 1);
- Definition of Accounting Estimates (Amendments to IAS 8); and
- IFRS 17: *Insurance Contracts*.

Critical Accounting Judgments and Estimates

The preparation of the Consolidated Financial Statements in conformity with IFRS requires management to make judgments, estimates and assumptions that are based on the facts and circumstances and estimates at the date of the Consolidated Financial Statements and affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Judgments, estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Ongoing Impact of the COVID-19 Pandemic

Following the World Health Organization declaring the COVID-19 outbreak a pandemic in March 2020, many governments have imposed restrictions on individuals and businesses to contain the spread of the virus, which adversely impacted global commercial activity and significantly increased economic uncertainty. Although restrictions have largely been relaxed and vaccination programs implemented, there continues to be uncertainty and the potential for continued volatility in the global economy as a result of the possible resurgence of the virus, including variants, while the COVID-19 pandemic remains. Management considered these uncertainties when applying judgment to estimates and assumptions in the Consolidated Financial Statements.

The following judgments and estimation uncertainties are those management considers material to the Consolidated Financial Statements:

Judgments

(i) Impairment

Assessment of impairment of non-financial assets is based on management's judgment of whether or not events or changes in circumstances indicate that the carrying value of an asset, investment, cash generating unit ("CGU") or group of CGUs exceeds its recoverable amount. The determination of a CGU is based on management's judgment and is an assessment of the smallest group of assets that generate cash inflows independently of other assets. When an impairment test is performed, the carrying value of a CGU or group of CGUs is compared to its recoverable amount, defined as the greater of fair value less costs of disposal and value in use. As such, the asset composition of a CGU or group of CGUs directly impacts both the carrying value and recoverability of the assets included therein.

(ii) Joint Control Over Joint Arrangements

The determination of joint control requires judgment about the influence Pembina has over the financial and operating decisions of an arrangement and the extent of the benefits it obtains based on the facts and circumstances of the arrangement during the reporting period. Joint control exists when decisions about the relevant activities require the unanimous consent of the parties that control the arrangement collectively. Ownership percentage alone may not be a determinant of joint control.

Estimates

(i) Deferred Taxes

The calculation of the deferred tax asset or liability is based on assumptions about the timing of many taxable events and the enacted or substantively enacted rates anticipated to be applicable to income in the years in which temporary differences are expected to be realized or reversed. Deferred income tax assets are recognized to the extent that it is probable that the deductible temporary differences will be recoverable in future periods, and estimates and judgement are used in assessing the recognition. Estimates including, but not limited to, the timing of reversal and future taxability may differ on actual realization, and may result in an income tax charge or credit in future periods.

(ii) Impairment of Non-Financial Assets

In determining the recoverable amount of a CGU, a group of CGUs or an individual asset, management uses its best estimates of future cash flows, including considerations related to climate change, and assesses discount rates to reflect management's best estimate of a rate that reflects a current market assessment of the time value of money and the specific risks associated with the underlying assets and cash flows.

11. RISK FACTORS

Pembina's value proposition is based on balancing economic benefit against risk. Where appropriate, Pembina will seek to reduce risk. Pembina continually works to mitigate the impact of potential risks to its business by identifying all significant risks so that they can be appropriately managed. To assist with identifying and managing risk, Pembina has implemented a comprehensive Risk Management Program. The risks that may affect the business and operation of Pembina and its operating subsidiaries are described at a high level within this MD&A and more fully within Pembina's AIF, an electronic copy of which is available at www.pembina.com or on Pembina's SEDAR profile at www.sedar.com and which is filed under Form 40-F on Pembina's EDGAR profile at www.sec.gov. Further, additional discussion about counterparty risk, market risk, liquidity risk and additional information on financial risk management can be found in Note 25 of the Consolidated Financial Statements.

Risks Inherent in Pembina's Business

Commodity Price Risk

Pembina's business is exposed to commodity price volatility and a substantial decline in the prices of these commodities could adversely affect its financial results.

Certain of the transportation contracts or tolling arrangements with respect to Pembina's pipeline assets do not include take-or-pay commitments from crude oil and gas producers and, as a result, Pembina is exposed to volume risk with respect to those assets. A decrease in volumes transported can directly and adversely affect Pembina's revenues and earnings. The demand for, and utilization of, Pembina's pipeline assets may be impacted by factors such as changing market fundamentals, capacity bottlenecks, operational incidents, regulatory restrictions, system maintenance, weather and increased competition. Market fundamentals, such as commodity prices and price differentials, natural gas and gasoline consumption, alternative energy sources and global supply disruptions outside of Pembina's control can impact both the supply of and demand for the commodities transported on Pembina's pipelines. See "*Reserve Replacement, Throughput and Product Demand*" below.

Pembina's Marketing business includes activities related to product storage, terminalling, and hub services. These activities expose Pembina to certain risks relating to fluctuations in commodity prices and, as a result, Pembina may experience volatility in revenue and impairments related to the book value of stored product with respect to these activities. Primarily, Pembina enters into contracts to purchase and sell crude oil, condensate, NGL and natural gas at floating market prices; as a result, the prices of products that are marketed by Pembina are subject to volatility as a result of factors such as seasonal demand changes, extreme weather conditions (the severity of which could increase due to climate change), market inventory levels, general economic conditions, the availability and price of transportation logistics, changes in crude oil markets and other factors. Pembina manages its risk exposure by balancing purchases and sales to secure less volatile margins. Notwithstanding Pembina's management of price and quality risk, marketing margins for commodities can vary and have varied significantly from period to period in the past. This variability could have an adverse effect on the results of Pembina's Marketing business and its overall results of operations. To assist in reducing this inherent variability in its Marketing business, Pembina has invested, and will continue to invest, in assets that have a fee-based revenue component.

Pembina is also exposed to potential price declines and decreasing frac spreads between the time Pembina purchases NGL feedstock and sells NGL products. Frac spread is the difference between the revenue from the sale of NGL if removed from a gas stream and the value such NGL would have had if left in the gas stream and sold at natural gas prices. Frac spreads can change significantly from period to period depending on the relationship between NGL and natural gas prices (the "frac spread ratio"), absolute commodity prices, transport differentials and changes in the Canadian to U.S. dollar exchange rate. In addition to the frac spread ratio changes, there is also a differential between NGL product prices and crude oil prices which can change margins realized for midstream products. The amount of profit or loss made on the extraction portion of the business will generally increase or decrease with frac spreads. This exposure could result in variability of cash flow generated by the Marketing business, which could affect Pembina and the cash dividends that Pembina is able to distribute.

The Company utilizes financial derivative instruments as part of its overall risk management strategy to assist in managing the exposure to commodity price, interest rate, cost of power and foreign exchange risks. As an example of commodity price mitigation, the Company actively fixes a portion of its exposure to fractionation margins through the use of derivative financial instruments. Additionally, Pembina's Marketing business is also exposed to variability in quality, time and location differentials for various products, and financial instruments may be used to offset the Company's exposures to these differentials. The Company does not trade financial instruments for speculative purposes. Commodity price fluctuations and volatility can also impact producer activity and throughput in Pembina's infrastructure, which is discussed in more detail below.

For more information with respect to Pembina's financial instruments and financial risk management program, see Note 25 to Pembina's Consolidated Financial Statements.

Regulation and Legislation

Legislation in Alberta and British Columbia, the jurisdictions from which most products transported by Pembina are produced, exists to ensure that producers have fair and reasonable opportunities to produce, process and market their reserves. Regulatory authorities in Alberta and British Columbia may declare the operator of a pipeline a common carrier of crude oil, NGL or natural gas. Common carriers must not discriminate between producers who seek access to the pipeline. Regulatory authorities may also establish conditions under which the common carrier must accept and carry product, including the tariffs that may be charged. Producers and shippers may also apply to the appropriate regulatory authorities for a review of tariffs, and such tariffs may then be regulated if it is proven that the tariffs are not just and reasonable. The potential for direct regulation of tariffs for pipelines other than the Alliance Pipeline and the Cochin Pipeline (the tolls and tariffs of which are otherwise subject to CER oversight), while considered remote by Pembina, could result in tariff levels that are less advantageous to Pembina and could impair the economic operation of such pipeline systems.

The AER is the primary regulatory body that oversees Pembina's Alberta-issued energy development permits, with some minor exceptions. Certain of Pembina's subsidiaries own pipelines in British Columbia, which are regulated by the BCOGC and the BCUC, and pipelines that cross provincial or international boundaries, which are regulated by the CER and/or the FERC and PHMSA. Certain of Pembina's operations and expansion projects are subject to additional regulations, and as Pembina's operations expand throughout Canada and North America, Pembina may be required to comply with the requirements of additional regulators and legislative bodies, including the IAAC, the BCEAO, the Ontario Ministry of Natural Resources and Forestry, the Saskatchewan Ministry of Energy and Resources and The Petroleum Branch of Manitoba Mineral Resources under Manitoba Agriculture and Resource Development.

In the U.S., FERC regulates interstate natural gas pipelines and the transportation of crude oil, NGL and refined products in interstate commerce. Under the NGA, FERC regulates the construction, extension, and abandonment of interstate natural gas pipelines and the rates, terms and conditions of service and other aspects of the business of interstate natural gas pipelines. Interstate natural gas pipelines rates, terms and conditions of service are filed at FERC and publicly available. Under the ICA, FERC regulates the rates, terms and conditions of the transportation in interstate commerce of crude oil, NGLs and refined products. Pipeline safety is regulated by the PHMSA, which sets standards for the design, construction, pressure testing, operation and maintenance, corrosion control, training and qualification of personnel, accident reporting and record keeping. The Office of Pipeline Safety, within the PHMSA, inspects and enforces the pipeline safety regulations across the U.S. All regulations and environmental, safety and economic compliance obligations are subject to change at the initiative of FERC, PHMSA or other United States Federal agencies with jurisdiction over aspects of the operations of pipelines, including environmental, economic and safety regulations. Changes by FERC in its regulations or policies could adversely impact Pembina's natural gas pipelines, making the construction, extension, expansion or abandonment of such pipelines more costly, causing delay in the permitting of such projects or impacting the likelihood of success of completion of such projects. Similarly, changes in FERC's regulations or policies could adversely impact the rates that Pembina's FERC regulated pipelines are able to charge and how such pipelines do business, whether such pipelines are regulated by FERC pursuant to the NGA or the ICA. Pembina continually monitors existing and changing regulations in all jurisdictions in which it currently operates, or into which it may expand in the future, and the potential implications to its operations; however, Pembina cannot predict future regulatory changes, and any such compliance and regulatory changes in any one or multiple jurisdictions could have a material adverse impact on Pembina, its financial results and its Shareholders.

In 2019, the federal government overhauled the environmental assessment and federal energy regulation regime in Canada. The National Energy Board ("NEB") and NEB Act were replaced by the CER and the *Canadian Energy Regulator Act* (Canada) ("CER Act"). Similarly, the *Canadian Environmental Assessment Act, 2012* (Canada) ("CEAA") was replaced by the *Impact Assessment Act* (Canada) ("IAA") and the Canadian Environmental Assessment Agency was replaced by the new IAAC as the authority responsible for conducting all federal impact assessments (formerly "environmental assessments") for certain designated projects under the IAA. The list of designated projects which are subject to mandatory assessment under the IAA is similar to the list under the CEAA; however, the length of new pipelines for which an impact assessment is required has been increased from 40 km to 75 km. The IAA also contains a broader project assessment process than under the CEAA and provides for enhanced consultation with groups that may be affected by proposed projects, while also expanding the scope of factors and considerations that need to be taken into account under the project assessment process. The CER continues to oversee approved federal, interprovincial and international energy projects in a manner similar to the former regime under the NEB, with new projects being referred to a review panel under the IAA. On July 16, 2020, the federal government published the Strategic Assessment of Climate Change ("SACC") under the provisions for such assessments in the IAA. The SACC imposes the new requirements regarding GHG emissions planning on projects subject to the IAA.

Few projects have been subject to the new federal impact assessment regime to date and Pembina continues to actively monitor developments in this area. To the extent these changes lengthen the review timeline for projects or expand the scope of the matters to be considered, the new regime could materially impact the amount of time and capital resources required by Pembina to seek and obtain approval to construct and operate international or interprovincial pipelines or other projects designated pursuant to the IAA project list or ministerial designation powers under the IAA. The new regime could therefore materially and directly impact Pembina's business and financial results, and could indirectly affect Pembina's business and financial results by impacting the financial condition and growth projects of its customers and, ultimately, production levels and throughput on Pembina's pipelines and in its facilities.

Pembina's business and financial condition may also be influenced by federal and foreign legislation affecting, in particular, foreign investment, through legislation such as the *Competition Act* (Canada), the *Investment Canada Act* (Canada) and equivalent legislation in foreign jurisdictions.

There can be no assurance that changes to income tax laws, regulatory and environmental laws or policies and government incentive programs relating to the pipeline or crude oil and natural gas industry will not adversely affect Pembina or the value of its securities.

Operational Risks

Operational risks include, but are not limited to: pipeline leaks; the breakdown or failure of equipment, pipelines and facilities, information systems or processes; the compromise of information and control systems; the performance of equipment at levels below those originally intended (whether due to misuse, unexpected degradation or design, construction or manufacturing defects); releases at truck terminals and hubs; releases associated with the loading and unloading of potentially harmful substances onto rail cars and trucks; adverse sea conditions (including storms and rising sea levels) and releases or spills from shipping vessels loaded at Pembina's marine terminal; failure to maintain adequate supplies of spare parts; operator error; labour disputes; disputes with interconnected facilities and carriers; operational disruptions or apportionment on third-party systems or refineries, which may prevent the full utilization of Pembina's facilities and pipelines; and catastrophic events, including, but not limited to, those related to climate change and extreme weather events, including fires, floods and other natural disasters, explosions, train derailments, earthquakes, widespread epidemics or pandemic outbreaks, acts of civil protest or disobedience, terrorism or sabotage, and other similar events, many of which are beyond the control of Pembina and all of which could result in operational disruptions, damage to assets, related releases or other environmental issues, and delays in construction, labour and materials. Pembina may also be exposed from time to time to additional operational risks not stated in the immediately preceding sentence. In addition, the consequences of any operational incident (including as a result of adverse sea conditions) at Vancouver Wharves and Prince Rupert Terminal or involving a vessel receiving products from Vancouver Wharves or Prince Rupert Terminal, may be even more significant as a result of the complexities involved in addressing leaks and releases occurring in the ocean or along coastlines and/or the repair of marine terminals. Any leaks, releases or other incidents involving such vessels, or other similar operators along the West Coast, could result in significant harm to the environment, curtailment of, or disruptions of and/or delays in, offshore shipping activity in the affected areas, including Pembina's ability to effectively carry on operations at Vancouver Wharves and the Prince Rupert Terminal. The occurrence or continuance of any of the foregoing events could increase the cost of operating Pembina's assets or reduce revenue, thereby impacting earnings. Additionally, facilities and pipelines are reliant on electrical power for their operations. A failure or disruption within the local or regional electrical power supply or distribution or transmission systems could significantly affect ongoing operations. Further, a significant increase in the cost of power or fuel could have a materially negative effect on the level of profit realized in cases where the relevant contracts do not provide for recovery of such costs. In the long-term, constraints on natural resource development could be impacted by climate change initiatives or policies, resulting in additional operational costs, delays or restrictions.

Pembina is committed to preserving customer and shareholder value by proactively managing operational risk through safe and reliable operations. Senior managers are responsible for the supervision of operational risk by ensuring appropriate policies, procedures and systems are in place within their business units and internal controls are operating efficiently. Pembina also has an extensive program to manage pipeline system integrity, which includes the development and use of in-line inspection tools and various other leak detection technologies. Pembina's maintenance, excavation and repair programs are focused on risk mitigation and, as such, resources are directed to the areas of greatest benefit and infrastructure is replaced or repaired as required. Pembina carries insurance coverage with respect to some, but not all, casualty occurrences in amounts customary for similar business operations, which coverage may not be sufficient to compensate for all casualty occurrences. In addition, Pembina has a comprehensive Security Management Program designed to reduce security-related risks.

Inflation

The general rate of inflation impacts the economies and business environments in which Pembina operates. Increased inflation and any economic conditions resulting from governmental attempts to reduce inflation, such as the imposition of higher interest rates or wage and price controls, may negatively impact levels of demand for Pembina's services and cost of inputs, and could, accordingly, have a material adverse effect on Pembina's business, financial condition and results of operations. Higher interest rates as a result of inflation could negatively impact the Company's borrowing costs, which could, in turn, have a material adverse effect on Pembina's cash flow and ability to service obligations under its debt securities and other debt obligations.

Completion and Timing of Expansion Projects

The successful completion of Pembina's growth and expansion projects is dependent on a number of factors outside of Pembina's control, including the impact of general economic, business and market conditions, availability of capital on terms and rates acceptable to Pembina, receipt of regulatory approvals, reaching long-term commercial arrangements with customers in respect of certain portions of the expansions, construction schedules, commissioning difficulties or delays and costs that may change depending on supply, demand and/or inflation, labour, materials and equipment availability, contractor non-performance, acts of civil protest or disobedience, terrorism or sabotage, weather conditions, cost of engineering services, and change in governments that granted the requisite regulatory approvals. There is no certainty, nor can Pembina provide any assurance, that necessary regulatory approvals will be received on terms that maintain the expected return on investment associated with a specific project, or at all, or that satisfactory commercial arrangements with customers will be entered into on a timely basis, or at all, or that third parties will comply with contractual obligations in a timely manner. Factors such as special interest group opposition, Indigenous, landowner and other stakeholder consultation requirements, civil protest or disobedience, changes in shipper support, and changes to the legislative or regulatory framework could all have an impact on meeting contractual and regulatory milestones. As a result, the cost estimates and completion dates for Pembina's major projects may change during different stages of the project. Early stage projects face additional challenges, including securing leases, easements, rights-of-way, permits and/or licenses from landowners or governmental authorities allowing access for such purposes, as well as Indigenous consultation requirements. Accordingly, actual costs and construction schedules may vary from initial estimates and these differences can be significant, and certain projects may not proceed as planned, or at all. Further, there is a risk that maintenance will be required more often than currently planned or that significant maintenance capital projects could arise that were not previously anticipated.

Under most of Pembina's construction and operating agreements, the Company is obligated to construct the facilities and pipelines regardless of delays and cost increases and Pembina bears the risk for any cost overruns. Future agreements entered into with customers with respect to expansions may contain similar conditions. While Pembina is not currently aware of any significant undisclosed cost overruns with respect to its current projects at the date hereof, any such cost overruns may adversely affect the economics of particular projects, as well as Pembina's business operations and financial results, and could reduce Pembina's expected return on investment which, in turn, could reduce the level of cash available for dividends and to service obligations under Pembina's debt securities and other debt obligations.

See "*General Risk Factors – Additional Financing and Capital Resources*" and "*Customer Contracts*" below.

Possible Failure to Realize Anticipated Benefits of Corporate Strategy

Pembina evaluates the value proposition for expansion projects, new acquisitions and divestitures on an ongoing basis. Planning and investment analysis is highly dependent on accurate forecasting assumptions and, to the extent that these assumptions do not materialize, financial performance may be lower or more volatile than expected. Volatility in the economy, change in cost estimates, failure to obtain regulatory approvals and permits, project scoping and risk assessment could result in a loss in profits for Pembina. As part of its ongoing strategy, Pembina may complete acquisitions of assets or other entities in the future. Achieving the benefits of completed and future acquisitions depends, in part, on successfully consolidating functions and integrating operations, procedures and personnel in a timely and efficient manner, as well as Pembina's ability to realize the anticipated growth opportunities and synergies from combining the acquired businesses and operations with those of Pembina. In particular, large scale acquisitions may involve significant pricing and integration risk. The integration of acquired businesses and entities requires the dedication of substantial management effort, time and resources, which may divert management's focus and resources from other strategic opportunities and from operational matters during this process. The integration process may also result in the loss of key employees and the disruption of ongoing business, customer and employee relationships, which may adversely affect Pembina's ability to achieve the anticipated benefits of any acquisitions. Acquisitions may also expose Pembina to additional risks, including risks relating to entry into markets or businesses in which Pembina has little or no direct prior experience, increased credit risks through the assumption of additional debt, costs and contingent liabilities and exposure to liabilities of the acquired business or assets.

As part its value proposition evaluation, Pembina may also desire to divest assets to optimize its operations and financial performance. Pembina may, however, be unable to sell certain assets or, if Pembina is able to sell certain assets, it may not receive the optimal or desired amount of proceeds from such asset sales. Additionally, the timing to close any asset sales could be significantly different than Pembina's expected timeline.

See "*General Risk Factors – Additional Financing and Capital Resources*" below.

Joint Ownership and Third-Party Operators

Certain of Pembina's assets are jointly owned and are governed by partnership or shareholder agreements entered into with third-parties. As a result, certain decisions relating to these assets require the approval of a simple majority of the owners, while others require unanimous approval of the owners. In addition, certain of these assets are operated by unrelated third-party entities. The success of these assets is, to some extent, dependent on the effectiveness of the business relationship and decision-making among Pembina and the other joint owner(s) and the expertise and ability of any third-party operators to operate and maintain the assets. While Pembina believes that there are prudent governance and other contractual rights in place, there can be no assurance that Pembina will not encounter disputes with joint owners or that assets operated by third parties may not perform as expected. Such events could impact operations or cash flows of these assets or cause them to not operate as Pembina expects which, in turn, could have a negative impact on Pembina's business operations and financial results, and could reduce Pembina's expected return on investment, thereby reducing the level of cash available for dividends and to service obligations under Pembina's debt securities and other debt obligations.

Reserve Replacement, Throughput and Product Demand

Pembina's pipeline revenue is based on a variety of tolling arrangements, including fee-for-service, cost-of-service agreements and market-based tolls. As a result, certain pipeline revenue is heavily dependent upon throughput levels of crude oil, condensate, NGL and natural gas. Future throughput on crude oil, NGL and natural gas pipelines and replacement of oil and gas reserves in the service areas will be dependent upon the activities of producers operating in those areas as they relate to exploiting their existing reserve bases and exploring for and developing additional reserves, and technological improvements leading to increased recovery rates. Similarly, the volumes of natural gas processed through Pembina's gas processing assets depends on the production of natural gas in the areas serviced by the gas processing business and associated pipelines. Without reserve additions, or expansion of the service areas, volumes on such pipelines and in such facilities would decline over time as reserves are depleted. As oil and gas reserves are depleted, production costs may increase relative to the value of the remaining reserves in place, causing producers to shut-in production or seek out lower cost alternatives for transportation. If, as a result, the level of tolls collected by Pembina decreases, cash flow available for dividends to Shareholders and to service obligations under Pembina's debt securities and Pembina's other debt obligations could be adversely affected.

Over the long-term, the ability and willingness of shippers to continue production will also depend, in part, on the level of demand and prices for crude oil, condensate, NGL and natural gas in the markets served by the crude oil, NGL and natural gas pipelines and gas processing and gathering infrastructure in which Pembina has an interest. Producers may shut-in production at lower product prices or higher production costs.

Global economic events may continue to have a substantial impact on the prices of crude oil, condensate, NGL and natural gas. Pembina cannot predict the impact of future supply/demand or economic conditions, fuel conservation measures, alternative fuel requirements, governmental regulation or technological advances in fuel efficiency and energy generation in the energy and petrochemical industries or future demand for and prices of natural gas, crude oil, condensate and NGL. A lower commodity price environment will generally reduce drilling activity and, as a result, the demand for midstream infrastructure could decline. Producers in the areas serviced by Pembina may not be successful in exploring for and developing additional reserves or achieving technological improvements to increase recovery rates and lower production costs during periods of lower commodity prices, which may also reduce demand for midstream infrastructure.

Future prices of these hydrocarbons are determined by supply and demand factors, including weather and general economic conditions as well as economic, political and other conditions in other crude oil and natural gas regions, all of which are beyond Pembina's control. The rate and timing of production from proven natural gas reserves tied into gas plants is at the discretion of producers and is subject to regulatory constraints. Producers have no obligation to produce from their natural gas reserves, which means production volumes are at the discretion of producers. Lower production volumes may increase the competition for natural gas supply at gas processing plants, which could result in higher shrinkage premiums being paid to natural gas producers. In addition, lower production volumes may lead to less demand for pipelines and processing capacity and could adversely impact Pembina's ability to re-contract on favourable terms with shippers as current agreements expire.

Pembina's gas processing assets are connected to various third-party trunk line systems. Operational disruptions or apportionment on those third-party systems may prevent the full utilization of Pembina's gas processing assets, which may have an adverse effect on Pembina's business.

Competition

Pembina competes with other pipeline, midstream, marketing and gas processing, fractionation and handling/storage service providers in its service areas as well as other transporters of crude oil, NGL and natural gas. The introduction of competing transportation alternatives into Pembina's service areas could limit Pembina's ability to adjust tolls as it may deem necessary and could result in the reduction of throughput in Pembina's pipelines. Additionally, potential pricing differentials on the components of NGL may result in these components being transported by competing gas pipelines. Pembina is determined to meet, and believes that it is prepared for, these existing and potential competitive pressures, including through agreements which provide for areas of dedication over the geographic areas in which Pembina's pipeline infrastructure is located. Pembina also competes with other businesses for growth and business opportunities, including competition related to potential greenfield development opportunities, which could impact its ability to grow through acquisitions and developments and could impact earnings and cash flow available to pay dividends and to service obligations under Pembina's debt securities and other debt obligations.

Reliance on Principal Customers

Pembina sells services and products to large customers within its area of operations and relies on several significant customers to purchase product for the Marketing business. If for any reason these parties are unable to perform their obligations under the various agreements with Pembina, the revenue and dividends of the Company and the operations of Pembina could be negatively impacted. See "*General Risk Factors – Counterparty Credit Risk*" below.

Customer Contracts

Throughput on Pembina's pipelines is governed by transportation contracts or tolling arrangements with various crude oil and natural gas producers. Pembina is party to numerous contracts of varying durations in respect of its gas gathering, processing and fractionation facilities as well as its terminalling and storage services. Any default by counterparties under such contracts or any expiration or early termination of such contracts or tolling arrangements without renewal or replacement, provided that such contracts are material to Pembina's business and operations, may have an adverse effect on Pembina's business and results from operations and there is no guarantee that any of the contracts that Pembina currently has in place will be renewed at the end of their term, including on terms favourable to Pembina, or replaced with other contracts in the event of early termination. Further, some contracts associated with the services described above are comprised of a mixture of firm and non-firm commitments. The revenue that Pembina earns on non-firm or firm commitments without take-or-pay service is dependent on the volume of crude oil, condensate, NGL and natural gas produced by producers in the relevant geographic areas. Accordingly, lower production volumes in these areas, including for reasons such as low commodity prices, may have an adverse effect on Pembina's revenue.

Risks Relating to Leases and Rights of Way Access

Certain Pembina facilities and associated infrastructure are located on lands leased or licensed from third parties and such leases and licenses must be renewed from time to time. Failure to renew the leases or licenses on terms acceptable to Pembina could significantly reduce the operations of such facilities and could result in related decommissioning costs for Pembina, pursuant to the terms of such leases or licenses. Successful development of new pipelines or extensions to existing pipelines depends in part on securing leases, easements, rights-of-way, permits and/or licenses from landowners or governmental authorities allowing access for such purposes. The process of securing rights-of-way or similar access is becoming more complex, particularly in more densely populated, environmentally sensitive and other areas. The inability to secure such rights-of-way or similar access could have an adverse effect on Pembina's operations and financial results.

Reputation

Reputational risk is the potential risk that market- or company-specific events, or other factors, could result in the deterioration of Pembina's reputation with key stakeholders. Pembina's business and operations, projects and growth opportunities require us to have strong relationships with key stakeholders, including local communities, Indigenous communities and other groups directly impacted by the Company's activities, as well as governments and government agencies.

The potential for deterioration of Pembina's reputation exists in many business decisions, which may negatively impact Pembina's business and the value of its securities. Reputational risk cannot be managed in isolation from other forms of risk. Credit, market, operational, insurance, liquidity, regulatory and legal, and technology risks, among others, must all be managed effectively to safeguard Pembina's reputation. Pembina's reputation could also be impacted by the actions and activities of other companies operating in the energy industry, particularly other energy infrastructure providers, over which Pembina has no control. In particular, Pembina's reputation could be impacted by negative publicity related to pipeline incidents, expansion plans or new projects or due to opposition from civilians or organizations opposed to energy, oil sands and pipeline development and, particularly, with shipment of production from oil sands regions. Further, Pembina's reputation could be negatively impacted by changing public attitudes towards climate change and the perceived causes thereof, over which the Company has no control. Negative impacts resulting from a compromised reputation, whether caused by Pembina's actions or otherwise, could include revenue loss, reduction in customer base, delays in obtaining regulatory approvals with respect to growth projects, reduced access to capital or decreased value of Pembina's securities and reduced insurance capacity and coverage.

Environmental Costs and Liabilities

Pembina's operations, facilities and petroleum product shipments are subject to extensive national, regional and local environmental, health and safety laws and regulations governing, among other things, discharges to air, land and water, the handling and storage of petroleum products and hazardous materials, waste disposal, the protection of employee health, safety and the environment, and the investigation and remediation of contamination. Pembina's facilities may experience incidents, malfunctions or other unplanned events that may result in spills or emissions and/or result in personal injury, fines, penalties, other sanctions or property damage. Pembina may also incur liability for environmental contamination associated with past and present activities and properties.

Pembina's facilities and pipelines must maintain a number of environmental and other permits from various governmental authorities in order to operate, and these facilities are subject to inspection from time to time. Failure to maintain compliance with these requirements could result in operational interruptions, fines or penalties, or the need to install additional pollution control technology. Licenses and permits must be renewed from time to time and there is no guarantee that a license or permit will be renewed on the same or similar conditions as it was initially granted. There can be no assurance that Pembina will be able to obtain all licenses, permits, registrations, approvals and authorizations that may be required to conduct operations that it may wish to undertake. Further, if at any time regulatory authorities deem any of Pembina's pipelines or facilities unsafe or not in compliance with applicable laws, they may order such facilities to be shut down. Certain significant environmental legislative initiatives that may materially impact Pembina's business and financial results and conditions are outlined below.

On December 11, 2020, the federal government announced "A Healthy Environment and a Healthy Economy" ("New Federal Climate Plan"), which aims to exceed the federal government's previous 2030 target for national GHG emissions reductions and to set Canada on a track to net-zero GHG emissions by 2050. The upstream oil and gas industry is expected to contribute a significant amount of the reduction needed to achieve these goals. The New Federal Climate Plan implements a number of specific measures described below, but is also expected to affect the decision-making of all federal government bodies, including federal regulators, consistent with, for instance, the application of the SACC to projects subject to the IAA, as described above.

The federal government mandated a pan-Canadian carbon price beginning at $20 per tonne in 2019, rising by $10 per tonne per year to $50 per tonne in 2022. Pursuant to the New Federal Climate Plan, after 2022, the carbon price will rise by $15 a year to $170 in 2030. The GGPPA establishes a set of minimum national standards for carbon pricing in Canada, which standards apply to provinces that otherwise fail to impose adequate provincial carbon pricing measures. The New Federal Climate Plan indicates the federal government will review the standard for adequacy of provincial carbon pricing measures under the GGPPA. This may result in the GGPPA applying more broadly to the provinces and territories. In 2021, a majority of the Supreme Court of Canada confirmed that the carbon pricing regime established under the GGPPA is constitutional. Future amendments to the GGPPA, including the potential increase in carbon price in accordance with the New Federal Climate Plan (which does not currently have the force of law), may impose additional costs on the operations of Pembina and Pembina's customers.

The federal Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector) ("Federal Methane Regulations"), which require reduction of fugitive and vented gas emissions from the upstream oil and gas sector, came into force on January 1, 2020. The federal government reported on the effectiveness of the Federal Methane Regulations in December 2021 and confirmed that the stringency of the Federal Methane Regulations will increase. The federal government has committed to reducing oil and gas methane emissions by at least 75 percent below 2012 levels by 2030 and expects to release draft regulations to implement this commitment in early 2023. The Federal Methane Regulations may impose additional costs on the operations of Pembina and Pembina's customers.

The federal government is also developing a Clean Fuel Standard that will require all producers and importers of liquid fossil fuels in Canada to reduce or offset the carbon intensity of the fuels they produce or import leading to a decrease of approximately 13 percent (below 2016 levels) in the carbon intensity of liquid fuels used in Canada by 2030. The final version of the regulations implementing the Clean Fuel Standard have been delayed and are now expected in early 2022. Pembina will continue to monitor the development of regulations on liquid fossil fuels. The potential costs and benefits of the Clean Fuel Standard to Pembina and its customers are continuing to be assessed.

Alberta satisfies federal requirements with respect to output-based carbon pricing for large emitters but is subject to the federal fuel charge pursuant to the GGPPA as of January 1, 2020. The fuel charge was $40 per tonne on April 1, 2021 and will rise to $50 per tonne on April 1, 2022.

The Technology Innovation and Emissions Reduction ("TIER") Regulation replaced the Carbon Competitiveness Incentive Regulation as Alberta's output-based emission allocations for large facility emitters on January 1, 2020. The TIER continues to facilitate emissions reductions relative to facilities that emitted 100,000 tonnes of GHGs or more in 2016 or any subsequent year. Facilities which are subject to the TIER are exempt from the federal output-based carbon price included in the GGPPA as the regimes are currently deemed equivalent. Pembina has three natural gas processing facilities subject to the TIER. At present, the operational and financial impacts of TIER are minimal and are anticipated to not change substantially over the next few years, subject to any significant increase in carbon price that may be imposed on Alberta pursuant to the GGPPA and the New Federal Climate Plan. As more facilities expand and increase production, it is anticipated that additional facilities will become subject to the TIER. The potential costs and benefits to Pembina of those facilities under the TIER are continuing to be assessed.

By an equivalency agreement with the federal government, which came into force October 26, 2020, the Federal Methane Regulations do not currently apply in Alberta. The application of the Federal Methane Regulations in Alberta may change in 2023 or earlier as the federal government works to meet its desired GHG emissions reduction targets. The Methane Emission Reduction Regulation came into force in Alberta on January 1, 2020, and, along with certain AER Directives, imposes largely the same constraints as the Federal Methane Regulations. The Federal Methane Regulations apply in Ontario and Manitoba but not currently, by equivalency agreements similar to that in effect in Alberta, in British Columbia or Saskatchewan.

The Government of Alberta, in its climate change legislation and guidelines, has legislated an overall cap on oil sands GHG emissions. The legislated emissions cap on oil sands operations has been set to a maximum of 100 megatonnes in any year.

Oil sands operations currently emit approximately 70 megatonnes per year. This legislated cap may limit oil sands production growth in the future.

Pembina is subject to regulation by the AER under the Licensee Liability Rating Program and the Large Facility Liability Management Program. Currently, if a licensee's deemed liabilities exceed its deemed assets (as calculated pursuant to the programs), it must reduce its liabilities or provide the AER with a security deposit. Failure to do so may restrict the licensee's ability to transfer licenses or result in enforcement action by the AER. On July 30, 2020, the Government of Alberta announced a new Liability Management Framework that will replace the current regime. On December 1, 2021, AER Directive 088: Licensee Life-cycle Management ("Directive 088") came into force. Directive 088 will replace the AER's current Licensee Liability Rating Program when it is fully implemented in 2022. Directive 088 introduces several new programs and assessments relative to the life cycle of Pembina's energy assets that are regulated by the AER, including the new licensee capability assessment, Licensee Management Program, Inventory Reduction Program, and security collection requirements. Beginning January 1, 2022, all licensees that have liability associated with inactive infrastructure will be required to spend a specified amount each year on reclamation activities, or post equivalent security with the AER.

Pembina is subject to regulation by the BCOGC under the Liability Management Rating program. Currently, if a licensee's deemed liabilities exceed its deemed assets (as calculated pursuant to the programs), it must reduce its liabilities or provide the BCOGC with a security deposit. Failure to do so may restrict the licensee's ability to transfer licenses or result in enforcement action by the BCOGC. The Liability Management Rating Program is being replaced by the "Permittee Capability Assessment" program. The Permittee Capability Assessment program is being developed in collaboration with the AER, is expected to generally align Directive 088 and is expected to be implemented in April 2022.

Policy reviews relating to climate change, liability management and other environmental issues are ongoing in the jurisdictions in which Pembina operates. Through active participation with industry associations and direct engagement with regulatory bodies, Pembina will continue to monitor and assess for material impacts to Pembina's business as regulations and policies continue to be developed.

While Pembina believes its current operations are in material compliance with applicable environmental, health and safety laws, there can be no assurance that substantial costs or liabilities will not be incurred as a result of non-compliance with such laws. Moreover, it is possible that other developments, such as changes in environmental, health and safety laws, regulations and enforcement policies thereunder, including with respect to climate change, claims for damages to persons or property resulting from Pembina's operations, and the discovery of pre-existing environmental liabilities in relation to Pembina's existing or future properties or operations, could result in significant costs and liabilities to Pembina. If Pembina is not able to recover the resulting costs or increased costs through insurance or increased tolls, cash flow available to pay dividends to Shareholders and to service obligations under Pembina's debt securities and Pembina's other debt obligations could be adversely affected.

Changes in environmental, health and safety regulations and legislation, including with respect to climate change, may also impact Pembina's customers and could result in crude oil and natural gas development and production becoming uneconomical, which would impact throughput and revenue on Pembina's systems and in its facilities.

See "*Reserve Replacement, Throughput and Product Demand*" above.

While Pembina maintains insurance for damage caused by seepage or pollution from its pipelines or facilities in an amount it considers prudent and in accordance with industry standards, certain provisions of such insurance may limit the availability thereof in respect of certain occurrences unless they are discovered within fixed time periods, which typically range from 72 hours to 30 days. Although Pembina believes it has adequate pipeline monitoring systems in place to monitor for a significant spill of product, if Pembina is unaware of a problem or is unable to locate the problem within the relevant time period, insurance coverage may lapse and may not be available.

Abandonment Costs

Pembina is responsible for compliance with all applicable laws and regulations regarding the dismantling, decommissioning, environmental, reclamation and remediation activities associated with abandonment of its pipeline systems and other assets at the end of their economic life, and these abandonment costs may be substantial. An accounting provision is made for the estimated cost of site restoration and is capitalized in the relevant asset category. A provision is recognized if, as a result of a past event, Pembina 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. Pembina's estimates of the costs of such abandonment or decommissioning could be materially different than the actual costs incurred. For more information with respect to Pembina's estimated net present value of decommissioning obligations, see Note 15 to the Consolidated Financial Statements.

The proceeds from the disposition of certain assets, including in respect of certain pipeline systems and line fill, may be available to offset abandonment costs. Pembina may, in the future, determine it prudent or be required by applicable laws or regulations to establish and fund additional reclamation funds to provide for payment of future abandonment costs. Such reserves could decrease cash flow available to pay for dividends to Shareholders and to service obligations under Pembina's debt securities and Pembina's other debt obligations.

To the best of its knowledge, Pembina has complied in all material respects with CER requirements relative to its wholly-owned CER-regulated pipelines for abandonment funding and has completed the compliance-based filings that are required under the applicable CER rules and regulations regarding the abandonment of its pipeline systems and assets. Pembina also has ownership in CER-regulated pipelines including in respect of the Alliance Pipeline, the Tupper pipelines and the Kerrobert pipeline, which are operated by or with its joint venture partners. Pembina and the joint venture partner in each case are responsible for the abandonment funding and the submission of the CER-compliance based filings for those CER-regulated pipelines. Pembina will continue to monitor any regulatory changes prior to the next five-year review and will complete the annual reporting as required by the CER.

Operating and Capital Costs

The operating and capital costs of Pembina's assets may vary considerably from current and forecasted values and rates and represent significant components of the cost of providing service. In general, as equipment ages, costs associated with such equipment may increase over time. In addition, operating and capital costs may increase as a result of a number of factors beyond Pembina's control, including general economic, business and market conditions and supply, demand and/or inflation in respect of required goods and/or services. Dividends may be reduced if significant increases in operating or capital costs are incurred and this may also impact the ability of Pembina to service obligations under its debt securities and other debt obligations.

Although certain operating costs are recaptured through the tolls charged on natural gas volumes processed and crude oil and NGL transported, respectively, to the extent such tolls escalate, producers may seek lower cost alternatives or stop production of their crude oil and/or natural gas.

Risks Relating to NGL by Rail

Pembina's operations include rail loading, offloading and terminalling facilities. Pembina relies on railroads and trucks to distribute its products for customers and to transport raw materials to its processing facilities. Costs for environmental damage, damage to property and/or personal injury in the event of a railway incident involving hydrocarbons have the potential to be significant. At this time, the *Railway Safety Act* (Canada), which governs the operation of railway equipment, does not contemplate regulatory enforcement proceedings against shippers, but consignors and shippers may be subject to regulatory proceedings under the *Transportation of Dangerous Goods Act* (Canada), which specifies the obligations of shippers to identify and classify dangerous goods, select appropriate equipment and prepare shipping documentation. While the *Canada Transportation Act* was amended in 2015 to preclude railway companies from shifting liability for third-party claims to shippers by tariff publication alone, major Canadian railways have adopted standard contract provisions designed to implement such a shift. Under various environmental statutes in both Canada and the U.S., Pembina could be held responsible for environmental damage caused by hydrocarbons loaded at its facilities or being carried on its leased rail cars. Pembina partially mitigates this risk by securing insurance coverage, but such insurance coverage may not be adequate in the event of an incident.

Railway incidents in Canada and the U.S. have prompted regulatory bodies to initiate reviews of transportation rules and publish various directives. Regulators in Canada and the U.S. have begun to phase-in more stringent engineering standards for tank cars used to move hydrocarbon products, which require all North American tank cars carrying crude oil or ethanol to be retrofitted and all tank cars carrying flammable liquids to be compliant in accordance with the required regulatory timelines. In addition, in 2020, the Government of Canada directed industry to review and update the rules regarding the transportation of crude oil and liquefied petroleum gas. While most legislative and regulatory changes apply directly to railway companies, costs associated with retrofitting locomotives and rail cars, implementing safety systems, increased inspection and reporting requirements may be indirectly passed on to Pembina through increased freight rates and car leasing costs. In addition, regulators in Canada and the U.S. have implemented changes that impose obligations directly on consignors and shippers, such as Pembina, relating to the certification of product, equipment procedures and emergency response procedures.

In the event that Pembina is ultimately held liable for any damages resulting from its activities relating to transporting NGL by rail, for which insurance is not available, or increased costs or obligations are imposed on Pembina as a result of new regulations, this could have an impact on Pembina's business, operations and prospects and could impact earnings and cash flow available to pay dividends and to service obligations under Pembina's debt securities and other debt obligations.

Ongoing Impact of the COVID-19 Pandemic

COVID-19 Related Impacts

Pembina's business and operations have been and may continue to be materially adversely affected by the COVID-19 pandemic, including ongoing uncertainty with respect to the extent and duration of the pandemic. The ongoing COVID-19 pandemic and actions that have, and may be, taken by governmental authorities in response thereto has resulted, and may continue to result in, among other things: an overall slowdown in the global economy; a decrease in global energy demand; increased volatility in financial and commodity markets; disruptions to global supply chains; labour shortages; significant impacts to the workforce; reductions in trade volumes; temporary operational restrictions and restrictions on gatherings of individuals, as well as shelter-in-place declarations and quarantine orders; business closures and travel bans; political and economic instability; and civil unrest. The occurrence of new variants thereof in certain geographic areas, including certain areas in which Pembina operates, and the possibility that a resurgence of the COVID-19 virus or the spread of such new or other variants or mutations thereof may occur in other areas, has resulted in the re-imposition of certain of the foregoing restrictions, and may result in further restrictions, by governmental authorities in certain jurisdictions, including certain jurisdictions in which Pembina operates. This further increases the risk and uncertainty as to the extent and duration of the COVID-19 pandemic and its ultimate impact of the global economy and other items noted above.

The risks to Pembina of the ongoing COVID-19 pandemic include, among other things: risks to the health and safety of Pembina's employees; a slowdown or temporary suspension of operations in certain geographic locations in which Pembina operates; additional delays in the completion, or deferral, of Pembina's growth and expansion projects; the availability of labour for projects; and supply chain disruptions, all or any of which could materially adversely impact Pembina's business operations and financial results.

The full extent and impact of the COVID-19 pandemic continues to be unknown at this time and the degree to which it may impact Pembina's business operations and financial results will depend on future developments, which are highly uncertain and cannot be predicted with any degree of certainty, including: the duration, severity and geographic spread of the COVID-19 virus and variants and mutations thereof, including in respect of the recent spread of new variants thereof in certain geographic areas, including certain areas in which Pembina operates; further actions that may be taken by governmental authorities, including in respect of travel restrictions and business disruptions; the effectiveness and timing of actions taken to contain and treat the COVID-19 virus and variants and mutations thereof, including the vaccines developed in response thereto; and how quickly and to what extent normal economic and operating conditions can resume.

Impact on General Risks

Depending on the extent and duration of the COVID-19 pandemic, it may also have the effect of heightening many of the other risks described herein, including the risks relating to Pembina's exposure to commodity prices; the successful completion of Pembina's growth and expansion projects, including the expected return on investment thereof; Pembina's ability to obtain required equipment, materials or labour; Pembina's ability to maintain its credit ratings; restricted access to capital and increased borrowing costs; Pembina's ability to pay dividends and service obligations under its debt securities and other debt obligations; and otherwise complying with the covenants contained in the agreements that govern Pembina's existing indebtedness.

Risk Factors Relating to the Securities of Pembina

Dilution of Shareholders

Pembina is authorized to issue, among other classes of shares, an unlimited number of Common Shares for consideration on terms and conditions as established by the Board of Directors without the approval of Shareholders in certain instances. Existing Shareholders have no pre-emptive rights in connection with such further issuances. Any issuance of Common Shares may have a dilutive effect on existing Shareholders.

Risk Factors Relating to the Activities of Pembina and the Ownership of Securities

The following is a list of certain risk factors relating to the activities of Pembina and the ownership of its securities:

- the level of Pembina's indebtedness from time to time could impair Pembina's ability to obtain additional financing on a timely basis to take advantage of business opportunities that may arise, which may have an adverse effect on the value of Pembina's securities;
- the uncertainty of future dividend payments by Pembina and the level thereof, as Pembina's dividend policy and the funds available for the payment of dividends from time to time will be dependent upon, among other things, operating cash flow generated by Pembina and its subsidiaries, financial requirements for Pembina's operations, the execution of its growth strategy and the satisfaction of solvency tests imposed by the ABCA for the declaration and payment of dividends;
- Pembina may make future acquisitions or may enter into financings or other transactions involving the issuance of securities of Pembina which may be dilutive to the holders of Pembina's securities;
- the inability of Pembina to manage growth effectively, and realize the anticipated growth opportunities from acquisitions and new projects, could have an adverse impact on Pembina's business, operations and prospects, which may also have an adverse effect on the value of Pembina's securities; and

- the market value of the Common Shares may deteriorate materially if Pembina is unable to meet its cash dividend targets or make cash dividends in the future.

Market Value of Common Shares and Other Securities

Pembina cannot predict at what price the Common Shares, Class A Preferred Shares or other securities issued by Pembina will trade in the future. Common Shares, Class A Preferred Shares and other securities of Pembina will not necessarily trade at values determined solely by reference to the underlying value of Pembina's assets. One of the factors that may influence the market price of the Common Shares and the Class A Preferred Shares is the annual dividend yield of such securities. An increase in interest rates may lead holders and/or purchasers of Common Shares or Class A Preferred Shares to demand a higher annual dividend yield, which could adversely affect the market price of the Common Shares or Class A Preferred Shares. In addition, the market price for Common Shares and the Class A Preferred Shares may be affected by announcements of new developments, changes in Pembina's operating results, failure to meet analysts' expectations, changes in credit ratings, changes in general market conditions, fluctuations in the market for equity or debt securities and other factors beyond the control of Pembina.

Shareholders are encouraged to obtain independent legal, tax and investment advice with respect to the holding of Common Shares or Class A Preferred Shares and other securities issued by Pembina.

General Risk Factors

Health and Safety

The operation of Pembina's business is subject to hazards of gathering, processing, transporting, fractionating, storing and marketing hydrocarbon products. Such hazards include, but are not limited to: blowouts; fires; explosions; gaseous leaks, including sour natural gas; migration of harmful substances; oil spills; corrosion; and acts of vandalism and terrorism. These hazards may interrupt operations, impact Pembina's reputation, cause loss of life or personal injury to the Company's workers or contractors, result in loss of or damage to equipment, property, information technology systems, related data and control systems or cause environmental damage that may include polluting water, land or air. Further, several of the Company's pipeline systems and related assets are operated in close proximity to populated areas and a major incident could result in injury or loss of life to members of the public. A public safety incident could also result in reputational damage to the Company, material repair costs or increased costs of operating and insuring Pembina's assets.

Additional Financing and Capital Resources

The timing and amount of Pembina's capital expenditures and contributions to equity accounted investees, and the ability of Pembina to repay or refinance existing debt as it becomes due, directly affects the amount of cash available for Pembina to pay dividends. Future acquisitions, expansions of Pembina's assets, other capital expenditures and the repayment or refinancing of existing debt as it becomes due may be financed from sources such as cash generated from operations, the issuance of additional Common Shares, Class A Preferred Shares or other securities (including debt securities) of Pembina and borrowings. Dividends may be reduced, or even eliminated, at times when significant capital or other expenditures are made. There can be no assurance that sufficient capital will be available on terms acceptable to Pembina, or at all, to make additional investments, fund future expansions or make other required capital expenditures. During periods of weakness in the global economy, and in particular the commodity-related industry sectors, Pembina may experience restricted access to capital and increased borrowing costs. The ability of Pembina to raise capital depends on, among other factors, the overall state of capital markets, Pembina's credit rating, investor demand for investments in the energy industry and demand for Pembina's securities. To the extent that external sources of capital, including the issuance of additional Common Shares, Class A Preferred Shares or other securities or the availability of additional credit facilities, become limited or unavailable on acceptable terms, or at all, due to credit market conditions or otherwise, the ability of Pembina to make the necessary capital investments to maintain or expand its operations, to repay outstanding debt or to invest in assets, as the case may be, may be impaired. To the extent Pembina is required to use operating cash flow to finance capital expenditures or acquisitions or to repay existing debt as it becomes due, the level of dividends payable may be reduced.

Counterparty Credit Risk

Counterparty credit risk represents the financial loss Pembina may experience if a counterparty to a financial instrument or commercial agreement fails to meet its contractual obligations to Pembina in accordance with the terms and conditions of such instruments or agreements with Pembina. Counterparty credit risk arises primarily from Pembina's short-term investments, trade and other receivables, advances to related parties and from counterparties to its derivative financial instruments.

Pembina continues to closely monitor and reassess the creditworthiness of its counterparties, including financial institutions. Pembina may reduce or mitigate its exposure to certain counterparties where it is deemed warranted and permitted under contractual terms. Pembina manages counterparty credit risk through established credit management techniques, including conducting comprehensive financial and other assessments on all new counterparties and regular reviews of existing counterparties to establish and monitor counterparties' creditworthiness, set exposure limits, monitor exposure to these limits and seek to obtain financial assurances where warranted and permitted under contractual terms. Pembina utilizes various sources of financial, credit and business information in assessing the creditworthiness of a counterparty, including external credit ratings, where available, and, in other cases, detailed financial statement analysis in order to generate an internal credit rating based on quantitative and qualitative factors. The establishment of counterparty exposure limits is governed by a Board-designated counterparty exposure limit matrix which represents the maximum dollar amounts of counterparty exposure by debt rating that can be approved for a particular counterparty.

Financial assurances from counterparties may include guarantees, letters of credit and cash. As at December 31, 2021, letters of credit totaling approximately $100 million (December 31, 2020: $130 million) were held primarily in respect of customer trade receivables.

Pembina has typically collected its receivables in full. At December 31, 2021, approximately 98 percent (December 31, 2020: 94 percent) of receivables were current. Pembina has a general lien and a continuing and first priority security interest in, and a secured charge on, all of a shipper's petroleum products in its custody. The risk of non-collection is considered to be low and no material impairment of trade and other receivables has been made as of the date hereof.

Pembina monitors and manages its concentration of counterparty credit risk on an ongoing basis. Pembina also evaluates counterparty risk from the perspective of future exposure with existing or new counterparties that support future capital expansion projects. Pembina believes these measures are prudent and allow for effective management of its counterparty credit risk but there is no certainty that they will protect Pembina against all material losses. As part of its ongoing operations, Pembina must balance its market and counterparty credit risks when making business decisions.

Debt Service

As at December 31, 2021, Pembina had exposure to floating interest rates on approximately $594 million(2020: $1.2 billion) in debt. Certain borrowings which occur under floating rates have been swapped to fixed rates using derivative financial instruments.

Variations in interest rates and scheduled principal repayments, if required under the terms of Pembina's banking agreements could result in significant changes in the amounts required to be applied to debt service before payment of any dividends. Certain covenants in the Company's agreements with its lenders may also limit certain payments and dividends paid by Pembina.

Pembina and its subsidiaries are permitted to borrow funds to finance the purchase of pipelines and other energy infrastructure assets, to fund capital expenditures or other financial obligations or expenditures in respect of such assets and for working capital purposes. Amounts paid in respect of interest and principal on debt incurred in respect of those assets reduce the amount of cash flow available for dividends on Common Shares. Pembina is also required to meet certain financial covenants under the Credit Facilities and is subject to customary restrictions on its operations and activities, including restrictions on the granting of security, incurring indebtedness and the sale of its assets.

The lenders under Pembina's Credit Facilities have been provided with guarantees and subordination agreements. If Pembina becomes unable to pay its debt service charges or otherwise commits an event of default, payments to the lenders under its Credit Facilities will rank in priority to dividends.

Although Pembina believes its existing Credit Facilities are sufficient for its immediate liquidity requirements, there can be no assurance that the amount available thereunder will be adequate for the future financial obligations of Pembina or that additional funds will be able to be obtained on terms acceptable to Pembina, or at all.

Credit Ratings

Rating agencies regularly evaluate Pembina and base their ratings of Pembina's long-term and short-term debt and Class A Preferred Shares on a number of factors. These factors include Pembina's financial strength as well as factors not entirely within Pembina's control, including conditions affecting the industry in which Pembina operates generally and the wider state of the economy. There can be no assurance that one or more of Pembina's credit ratings will not be downgraded. A credit rating downgrade could also limit Pembina’s access to debt and preferred share markets.

Pembina's borrowing costs and ability to raise funds are directly impacted by its credit ratings. Credit ratings may be important to suppliers or counterparties when they seek to engage in certain transactions with Pembina. A credit rating downgrade may impair Pembina's ability to enter into arrangements with suppliers or counterparties, engage in certain transactions, limit Pembina's access to private and public credit markets or increase the costs of borrowing under its existing Credit Facilities. A credit rating downgrade could also limit Pembina's access to debt and preferred share markets.

Reliance on Management, Key Individuals and a Skilled Workforce

Pembina is dependent on senior management and directors of the Company in respect of the governance, administration and management of all matters relating to Pembina and its operations and administration. The loss of the services of key individuals could have a detrimental effect on Pembina. In addition, Pembina's operations require the retention and recruitment of a skilled workforce, including engineers, technical personnel and other professionals. Pembina competes with other companies in the energy industry for this skilled workforce. If the Company is unable to retain current employees and/or recruit new employees or comparable skill, knowledge and experience, Pembina's business and operations could be negatively impacted. The costs associated with retaining and recruiting key individuals and a skilled workforce could adversely affect Pembina's business opportunities and financial results and there is no assurance that Pembina will continue to attract and retain all personnel necessary for the development and operation of its business.

Indigenous Land Claims and Consultation Obligations

Indigenous people have claimed title and rights to a considerable portion of the lands in western Canada. The successful assertion of Indigenous title or other Indigenous rights claims may have an adverse effect on western Canadian crude oil and natural gas production or oil sands development and may result in reduced demand for Pembina's assets and infrastructure that service those areas, which could have a material adverse effect on Pembina's business and operations.

In Canada, the federal and provincial governments (the "Crown") have a duty to consult and, when appropriate, accommodate Indigenous peoples when the interests of the Indigenous peoples may be affected by a Crown action or decision. Crown actions include the decision to issue a regulatory approval relating to activities that may impact Indigenous rights, interests or lands. The Crown may rely on steps undertaken by a regulatory agency to fulfill its duty to consult and accommodate in whole or in part. Therefore, the processes established by regulatory bodies, such as the AER, the BCOGC, the BCEAO and the CER, often include an assessment of Indigenous rights claims and consultation obligations. While the Crown holds ultimate responsibility for ensuring consultation is adequate, this issue is often a major aspect of regulatory permitting processes. If a regulatory body, or the Crown itself, determines that the duty to consult has not been appropriately discharged relative to the issuance of regulatory approvals required by Pembina, the issuance of such approvals may be delayed or denied, thereby impacting Pembina's Canadian operations.

As described in "*Regulation and Legislation*" above, the CER Act, IAA, and associated amendments to the *Fisheries Act* (Canada) and the *Canadian Navigable Waters Act* (Canada) replaced previously applicable regimes in 2019. A number of the federal regulatory process amendments pertain to the participation of Indigenous groups and the protection of Indigenous and treaty rights. The new legislation generally codifies existing law and practice with respect to these matters. For example, decision makers are now expressly required to consider the effects (positive or negative) of a proposed project on constitutionally-protected Indigenous rights, as well as Indigenous peoples themselves, and ensure that consultation is undertaken during the planning phase of impact assessment processes. The new legislation also creates a larger role for Indigenous governing bodies in the impact assessment process (enabling the delegation of certain aspects of the impact assessment process to such groups) and requires decision makers to consider Indigenous traditional knowledge in certain cases.

The federal government is advancing recognition of Indigenous rights across Canada. As part of these efforts, the federal government enacted the *United Nations Declaration on the Rights of Indigenous Peoples* ("UNDRIP") *Act* on June 21, 2021. The purpose of the legislation is to affirm the application of the UNDRIP in Canadian law, but the practical effects of the legislation are yet to be determined as it only requires the government to prepare and implement an action plan for this application, and annually report on its progress. Structurally similar legislation was enacted by British Columbia in 2019; the *Declaration on the Rights of Indigenous Peoples Act* ("DRIPA").

The recognition of Indigenous rights is also facilitated by the renewed British Columbia *Environmental Assessment Act* (the "EA Act") that came into force in late 2019. The EA Act is designed as a "consent-based" environmental assessment model and is intended to support reconciliation with Indigenous peoples and the implementation of the UNDRIP. The legislation requires the BCEAO to seek participating Indigenous groups' consent with respect to, among other things, the decision to issue an environmental assessment certificate to a given project. While the EA Act does not strictly require consent in most cases, the legislation creates significant new participation opportunities for Indigenous groups during environmental assessments, which may increase the time required to obtain regulatory approvals and thereby impact Pembina's operations in British Columbia.

Pembina continues to actively monitor the development of the regulations required to facilitate the implementation of the UNDRIP Act, DRIPA, EA Act and the impact that other federal and provincial government initiatives on Indigenous rights may have on its business.

In addition, Pembina is monitoring the impact of the recent judgment of the Supreme Court of British Columbia with respect to the claim brought by the Blueberry River First Nation ("BRFN") against British Columbia relating to the cumulative impact of industrial development within the BRFN treaty area. The judgment has created uncertainty and may result in the imposition of additional requirements to obtain regulatory approvals for developing pipelines or associated facilities in the area and could cause delays, suspensions, or deferrals in the development of such facilities. It may also impact the current and future activities of producers operating in the area and cause them to decrease production, which could, in turn, reduce such producers' demand for Pembina's existing pipeline capacity and processing assets, and may have an adverse effect on Pembina's business. On October 7, 2021, the government of British Columbia and BRFN reached an initial agreement which has been characterized as a first step in responding to the Court's decision. Pembina continues to actively monitor regulatory developments associated with this matter; however, Pembina cannot predict future regulatory changes that may arise to address the Court's decision and any such regulatory changes could impact the operations of Pembina and Pembina's customers.

Potential Conflicts of Interest

Shareholders and other security holders of Pembina are dependent on senior management and the directors of Pembina for the governance, administration and management of Pembina. Certain directors and officers of Pembina may be directors or officers of entities in competition to Pembina or may be directors or officers of certain entities in which Pembina holds an equity investment in. As such, certain directors or officers of Pembina may encounter conflicts of interest in the administration of their duties with respect to Pembina. Pembina mitigates this risk by requiring directors and officers to disclose the existence of potential conflicts in accordance with Pembina's Code of Ethics and in accordance with the ABCA.

Litigation

In the course of their business, Pembina and its various subsidiaries and affiliates may be subject to lawsuits and other claims, including with respect to Pembina's growth or expansion projects. Defence and settlement costs associated with such lawsuits and claims may be substantial, even with respect to lawsuits and claims that have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal or other proceeding may have a material adverse effect on the financial position or operating results of Pembina.

Changes in Tax Legislation

Tax legislation that Pembina is subject to may be amended (or the interpretation of such legislation may change), retroactively or prospectively, resulting in tax consequences that materially differ from those contemplated by Pembina in the jurisdictions in which Pembina has operations, which may create a risk of non-compliance and re-assessment. While Pembina believes that its tax filing positions are appropriate and supportable, it is possible that governing tax authorities may: (i) amend tax legislation (or its interpretation of such legislation may change), or (ii) successfully challenge Pembina's interpretation of tax legislation, either of which could expose Pembina to additional tax liabilities and may affect Pembina's estimate of current and future income taxes and could have an adverse effect on the financial condition and prospects of Pembina and the distributable cash flow available to pay dividends and to service obligations under Pembina's debt securities and other debt obligations.

Foreign Exchange Risk

Pembina's cash flows, namely a portion of its commodity-related cash flows, certain cash flows from U.S.-based infrastructure assets, and distributions from U.S.-based investments in equity accounted investees, are subject to currency risk, arising from the denomination of specific cash flows in U.S. dollars. Additionally, a portion of Pembina's capital expenditures, and contributions or loans to Pembina's U.S.-based investments in equity accounted investees, may be denominated in U.S. dollars. Pembina monitors, assesses, and responds to these foreign currency risks using an active risk management program, which may include the exchange of foreign currency for domestic currency at a fixed rate.

Cyber Security

Pembina's infrastructure, technologies and data are becoming increasingly integrated. Such integration creates a risk that the failure of one system could lead to failure of other systems which may also have an impact on the Company's physical assets and its ability to safely operate such assets. Furthermore, Pembina and its third-party vendors collect and store sensitive data in the ordinary course of business, including personal identification information of employees as well as proprietary business information and that of the Company's customers, suppliers, investors and other stakeholders. Notable cybersecurity threats include unauthorized access to information technology systems due to hacking, viruses, cyber phishing attacks and other causes that can result in service disruptions, system failures and unauthorized access to confidential business information. Due to Pembina's high level of integration, such an attack on the information technology systems of one segment or asset of Pembina could have a material adverse effect on the broader business, operations or financial results of the Company.

As a result of the critical nature of energy infrastructure, the industry has experienced an increasing risk of cyber-attacks. Any breach in the security or failure of Pembina's information technology could result in operational outages, delays, damage to assets or the environment, reputational harm, lost profits, lost data and other adverse outcomes for which Pembina could be held liable, all of which could adversely affect Pembina's reputation, business, operations or financial results. As a result of a cyber-attack or security breach, Pembina could also be liable under laws that protect the privacy of personal information or subject to regulatory penalties.

Political Uncertainty

Recent political and social events and decisions made in Canada, the U.S. and elsewhere, including changes to federal, provincial, state or municipal governments in Canada and the U.S., have, and can continue to create future uncertainty on global financial and economic markets. This uncertainty may impact the energy industry in Canada and may have an adverse effect on Pembina's business and financial results.

Risks Relating to Breach of Confidentiality

Pembina regularly enters into confidentiality agreements with third parties prior to the disclosure of any confidential information when discussing potential business relationships or other transactions. Breaches of confidentiality could put Pembina at competitive risk and may cause significant damage to its business. There is no assurance that, in the event of a breach of confidentiality, Pembina will be able to obtain equitable remedies from a court of competent jurisdiction in a timely manner, if at all, in order to prevent or mitigate any damage to its business that such a breach of confidentiality may cause.

Concentration of Assets in the Western Canadian Sedimentary Basin

The majority of Pembina's assets are concentrated in the WCSB, which leaves the company exposed to the economic conditions of that area. Pembina mitigates this risk through a diversity of business activities within the area and by owning and operating assets in the U.S.

Risks Related to Climate Change

Risks Relating to Changing Investor Sentiment in the Oil and Gas Industry

A number of factors, including the concerns of the effects of the use of fossil fuels on climate change, concerns of the impact of oil and gas operations on the environment, concerns of environmental damage relating to spills of petroleum products during transportation and concerns of Indigenous rights, have affected certain investors' sentiments towards investing in the oil and gas industry. As a result of these concerns, some institutional, retail and public investors have announced that they are no longer willing to fund or invest in oil and gas properties or companies and/or are reducing the amount of such investments over time. In addition, certain institutional investors are requesting that issuers develop and implement more robust social, environmental and governance policies and practices. Developing and implementing such policies and practices can involve significant costs and require a significant time commitment from Pembina's Board of Directors, management and employees. Failure to implement the policies and practices as requested by institutional investors may result in such investors reducing their investment in Pembina or not investing in Pembina at all. Any reduction in the investor base interested or willing to invest in the oil and gas industry and, more specifically, Pembina may result in limits on Pembina's ability to access capital, increases to the cost of capital, a downgrade in Pembina's credit ratings and outlooks, and a decrease in the price and liquidity of Pembina's securities even if Pembina's operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause a decrease in the value of an asset which may result in an impairment charge.

Energy Market Transition

Changing consumer preferences, new technologies, government regulation or other external factors may result in a rapid transition from fossil-based sources of energy, including energy derived from crude oil and natural gas, to renewable and other alternative sources of energy. This may lead to lower global demand for crude oil and natural gas and related commodities and, in turn, may lead to lower prices for crude oil, natural gas and NGL and related commodities. This could negatively impact the Company's producing customers and lead to less demand for Pembina's services, which could negatively impact the revenue the Company receives from, and the value of, its pipelines, facilities and other infrastructure assets, the useful life of those assets and accelerate the timing of decommissioning.

In addition, Pembina may invest in opportunities related to an energy transition, which may involve investments in businesses, operations or assets relating to renewable or other alternative forms of energy. Such investments may involve certain risks and uncertainties in addition to those identified herein in respect of Pembina's existing businesses, operations and assets, including the obligation to comply with additional regulatory and other legal requirements associated with such businesses, operations or assets and the potential requirement for additional sources of capital to make, develop and/or maintain such investments and Pembina's ability to access such sources of capital. In the event Pembina were to complete such investments, there can be no guarantee that Pembina will realize a return on those investments or businesses, operations or assets that is similar to the returns it receives in respect of its existing business, operations and assets or that would offset any loss in revenue from, or the value of, the Company's existing pipeline, facilities and other infrastructure assets resulting from the impact of the potential energy transition. As a result, any such investment could reduce the level of cash available for dividends and to service obligations under Pembina's debt securities and other debt obligations and may also negatively impact the trading price of Pembina's securities.

Greenhouse Gas Emissions and Targets

Among other sustainability goals, Pembina has committed to reducing GHG emissions intensity of its operations by 30 percent by 2030 (based on a 2019 baseline year). The Company's ability to lower GHG emissions in respect of its 2030 emissions intensity reduction target is subject to numerous risks and uncertainties, and Pembina's actions taken in to implement these objectives may also expose the Company to certain additional and/or heightened financial and operational risks. A reduction in GHG emissions intensity relies on, among other things, Pembina's ability to implement and improve energy efficiency at all facilities, future development and growth opportunities, development and deployment of new technologies, investment in lower-carbon power and transition to greater use of renewable and lower emission energy sources. In the event that the Company is unable to implement these strategies and technologies as planned without negatively impacting its expected operations or business plans, or in the event that such strategies or technologies do not perform as expected, the Company may be unable to meet its GHG emissions intensity reduction targets or goals on the current timelines, or at all.

In addition, achieving the Company's GHG emissions intensity reductions target and goals could require significant capital expenditures and resources, with the potential that the costs required to achieve such target and goals materially differ from Pembina's original estimates and expectations, which differences may be material. In addition, while the intent is to improve efficiency and increase the use of renewable and lower-carbon energy, the shift in resources and focus towards GHG emissions reduction could have a negative impact on Pembina's operating results. The overall final cost of investing in and implementing a GHG emissions intensity reduction strategy and technologies in furtherance of such strategy, and the resultant change in the deployment of the Company's resources and focus, could have a material adverse effect on Pembina’s business, financial condition and results of operations.

Risks Relating to Weather Conditions

Weather conditions (including those associated with climate change) can affect the demand for and price of natural gas and NGL. As a result, changes in weather patterns may affect Pembina's gas processing business. For example, colder winter temperatures generally increase demand for natural gas and NGL used for heating which tends to result in increased throughput volume on the Alliance Pipeline and at the Company's gas processing facilities and higher prices in the processing and storage businesses. Pembina has capacity to handle any such increased volume of throughput and storage at its facilities to meet changes in seasonal demand; however, at any given time, processing and storage capacity is finite.

Weather conditions (including those associated with climate change) may impact Pembina's ability to complete capital projects, repairs or facility turnarounds on time, potentially resulting in delays and increased costs. Weather may also affect access to Pembina's facilities, and the operations and projects of Pembina's customers or shippers, which may impact the supply and/or demand for Pembina's services. With respect to construction activities, in areas where construction can be conducted in non-winter months, Pembina attempts to schedule its construction timetables so as to minimize potential delays due to cold winter weather.

Changes and/or extreme variability in weather patterns, as well as increases in the frequency of extreme weather events, such as floods, cyclones, hurricanes, droughts and forest fires, increases the potential risk for Pembina's assets, including operational disruptions, transportation difficulties, supply chain disruptions, employee safety incidents, and damage to assets, which may result in lower revenues, higher costs or project delays.

See also "*Risk Factors – Risks Inherent in Pembina's Business – Environmental Costs and Liabilities*"; and "*Risk Factors – Risks Inherent in Pembina's Business – Reputation*".

12. NON-GAAP & OTHER FINANCIAL MEASURES

Throughout this MD&A, Pembina has disclosed certain financial measures that are not specified, defined or determined in accordance with GAAP and which are not disclosed in Pembina's financial statements. Non-GAAP financial measures either exclude an amount that is included in, or include an amount that is excluded from, the composition of the most directly comparable financial measure specified, defined and determined in accordance with GAAP. These non-GAAP financial measures and ratios, together with financial measures and ratios specified, defined and determined in accordance with GAAP, are used by management to evaluate the performance and cash flows of Pembina and its businesses and to provide additional useful information respecting Pembina's financial performance and cash flows to investors and analysts.

In this MD&A, Pembina has disclosed the following non-GAAP financial measures, non-GAAP ratios and other supplementary financial measures: net revenue, adjusted EBITDA from equity accounted investees, adjusted EBITDA, adjusted EBITDA per common share, adjusted cash flow from operating activities and adjusted cash flow from operating activities per common share.

Non-GAAP financial measures and ratios disclosed in this MD&A do not have any standardized meaning under IFRS and may not be comparable to similar financial measures disclosed by other issuers. The financial measures and ratios should not, therefore, be considered in isolation or as a substitute for, or superior to, measures and ratios of Pembina's financial performance, or cash flows specified, defined or determined in accordance with IFRS, including revenue, earnings, share of profit from equity accounted investees and cash flow from operating activities.

Except as otherwise described herein, these non-GAAP financial measures and non-GAAP ratios are calculated on a consistent basis from period to period. Specific reconciling items may only be relevant in certain periods.

Below is a description of each non-GAAP financial measure, non-GAAP ratio and supplementary financial measure disclosed in this MD&A, together with, as applicable, disclosure of: the most directly comparable financial measure that is specified, defined and determined in accordance with GAAP to which each non-GAAP financial measure relates; a quantitative reconciliation of each non-GAAP financial measure to such directly comparable GAAP financial measure; the composition of each non-GAAP financial measure, non-GAAP ratio and supplementary financial measure; an explanation of how each non-GAAP financial measure and non-GAAP ratio provides useful information to investors and the additional purposes, if any, for which management uses each non-GAAP financial measure and non-GAAP ratio; and an explanation of the reason for any change in the label or composition of each non-GAAP financial measure and non-GAAP ratio from what was previously disclosed.

Net Revenue

Net revenue is a non-GAAP financial measure which is defined as total revenue less cost of goods sold including product purchases. Management believes that net revenue provides investors with a single measure to indicate the margin on sales before non-product operating expenses that is comparable between periods. Management utilizes net revenue to compare consecutive results in Marketing & New Ventures and Facilities, to aggregate revenue generated by each of the Company's divisions and to set comparable objectives. The most directly comparable financial measure to net revenue that is specified, defined and determined in accordance with GAAP and disclosed in the Pembina's financial statements is revenue.

3 Months Ended December 31 *($ millions)*	**Pipelines**		**Facilities**		**Marketing & New Ventures**		**Corporate & Inter-segment Eliminations**		**Total**	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Revenue	**606**	603	**349**	326	**1,750**	882	**(145)**	(131)	**2,560**	1,680
Cost of goods sold, including product purchases	**—**	—	**(1)**	4	**1,554**	809	**(77)**	(87)	**1,476**	726
Net revenue	**606**	603	**350**	322	**196**	73	**(68)**	(44)	**1,084**	954

12 Months Ended December 31 *($ millions)*	Pipelines		Facilities		Marketing & New Ventures		Corporate & Inter-segment Eliminations		Total	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Revenue	**2,279**	2,251	**1,363**	1,231	**5,577**	2,956	**(592)**	(485)	**8,627**	5,953
Cost of goods sold, including product purchases	**—**	—	**6**	11	**5,017**	2,815	**(334)**	(317)	**4,689**	2,509
Net revenue	**2,279**	2,251	**1,357**	1,220	**560**	141	**(258)**	(168)	**3,938**	3,444

Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization ("adjusted EBITDA") and adjusted EBITDA per Common Share

Adjusted EBITDA is a non-GAAP financial measure and is calculated as earnings before net finance costs, income taxes, depreciation and amortization (included in operations and general and administrative expense) and unrealized gains or losses on commodity-related derivative financial instruments. The exclusion of unrealized gains or losses on commodity-related derivative financial instruments eliminates the non-cash impact of such gains or losses.

Adjusted EBITDA also includes adjustments to earnings for losses (gains) on disposal of assets, transaction costs incurred in respect of acquisitions, dispositions and restructuring, impairment charges or reversals in respect of goodwill, intangible assets, investments in equity accounted investees and property, plant and equipment, certain non-cash provisions and other amounts not reflective of ongoing operations. In addition, Pembina's proportionate share of results from investments in equity accounted investees with a preferred interest is presented in adjusted EBITDA as a 50 percent common interest. These additional adjustments are made to exclude various non-cash and other items that are not reflective of ongoing operations.

Management believes that adjusted EBITDA provides useful information to investors as it is an important indicator of an issuer's ability to generate liquidity through cash flow from operating activities and equity accounted investees. Management also believes that adjusted EBITDA provides an indicator of operating income generated from capital expenditures, which includes operational finance income from lessor lease arrangements. Adjusted EBITDA is also used by investors and analysts for assessing financial performance and for the purpose of valuing an issuer, including calculating financial and leverage ratios. Management utilizes adjusted EBITDA to set objectives and as a key performance indicator of the Company's success. Pembina presents adjusted EBITDA as management believes it is a measure frequently used by analysts, investors and other stakeholders in evaluating the Company's financial performance.

Adjusted EBITDA per common share is a non-GAAP financial ratio which is calculated by dividing adjusted EBITDA by the weighted average number of common shares outstanding.

3 Months Ended December 31 *($ millions, except per share amounts)*	Pipelines		Facilities		Marketing & New Ventures		Corporate & Inter-segment Eliminations		Total	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Earnings (loss) before income tax	**(70)**	(992)	**160**	143	**224**	(684)	**(181)**	(114)	**133**	(1,647)
Adjustments to share of profit from equity accounted investees and other	**65**	60	**36**	32	**5**	28	**—**	—	**106**	120
Net finance costs	**6**	7	**5**	8	**(1)**	(15)	**97**	59	**107**	59
Depreciation and amortization	**101**	102	**56**	50	**12**	13	**11**	15	**180**	180
Unrealized loss (gain) on commodity-related derivative financial instruments	**—**	—	**24**	10	**(54)**	76	**—**	—	**(30)**	86
Canadian Emergency Wage Subsidy	**—**	—	**—**	—	**—**	—	**—**	(2)	**—**	(2)
Transformation and restructuring costs	**—**	—	**—**	—	**—**	—	**21**	—	**21**	—
Transaction costs incurred in respect of acquisitions	**—**	—	**—**	—	**—**	—	**5**	2	**5**	2
Impairment charges and non-cash provisions	**446**	1,400	**4**	12	**(3)**	657	**1**	(1)	**448**	2,068
Adjusted EBITDA	**548**	577	**285**	255	**183**	75	**(46)**	(41)	**970**	866
Adjusted EBITDA per common share – basic *(dollars)*									**1.76**	1.57

12 Months Ended December 31 *($ millions, except per share amounts)*	Pipelines		Facilities		Marketing & New Ventures		Corporate & Inter-segment Eliminations		Total	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Earnings (loss) before income tax	**917**	128	**715**	642	**391**	(646)	**(358)**	(540)	**1,665**	(416)
Adjustments to share of profit from equity accounted investees and other	**286**	240	**135**	135	**23**	43	**—**	—	**444**	418
Net finance costs	**29**	31	**35**	24	**(8)**	(13)	**394**	378	**450**	420
Depreciation and amortization	**413**	402	**214**	199	**50**	50	**46**	49	**723**	700
Unrealized (gain) loss on commodity-related derivative financial instruments	**—**	—	**(38)**	(4)	**(35)**	88	**—**	—	**(73)**	84
Canadian Emergency Wage Subsidy	**—**	—	**—**	—	**—**	—	**3**	(39)	**3**	(39)
Transformation and restructuring costs	**—**	3	**—**	2	**—**	1	**47**	4	**47**	10
Transaction costs incurred in respect of acquisitions	**—**	—	**—**	—	**—**	—	**31**	18	**31**	18
Arrangement Termination Payment	**—**	—	**—**	—	**—**	—	**(350)**	—	**(350)**	—
Impairment charges and non-cash provisions	**457**	1,404	**36**	14	**(1)**	670	**1**	(2)	**493**	2,086
Adjusted EBITDA	**2,102**	2,208	**1,097**	1,012	**420**	193	**(186)**	(132)	**3,433**	3,281
Adjusted EBITDA per common share – basic *(dollars)*									**6.24**	5.97

Adjusted EBITDA from Equity Accounted Investees

In accordance with IFRS, Pembina's jointly controlled investments are accounted for using equity accounting. Under equity accounting, the assets and liabilities of the investment are presented net in a single line item in the Consolidated Statement of Financial Position, "Investments in Equity Accounted Investees". Net earnings from investments in equity accounted investees are recognized in a single line item in the Consolidated Statement of Earnings and Comprehensive Income "Share of Profit from Equity Accounted Investees". The adjustments made to earnings, in adjusted EBITDA above, are also made to share of profit from investments in equity accounted investees. Cash contributions and distributions from investments in equity accounted investees represent Pembina's share paid and received in the period to and from the investments in equity accounted investees.

To assist in understanding and evaluating the performance of these investments, Pembina is supplementing the IFRS disclosure with non-GAAP proportionate consolidation of Pembina's interest in the investments in equity accounted investees. Pembina's proportionate interest in equity accounted investees has been included in adjusted EBITDA.

3 Months Ended December 31 *($ millions)*	Pipelines		Facilities		Marketing & New Ventures		Total	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020
Share of profit (loss) from equity accounted investees - operations	**29**	54	**21**	14	**33**	(312)	**83**	(244)
Adjustments to share of profit (loss) from equity accounted investees:								
Net finance costs	**26**	17	**7**	8	**(1)**	20	**32**	45
Depreciation and amortization	**(4)**	56	**29**	24	**6**	6	**31**	86
Unrealized loss on commodity-related derivative financial instruments	**—**	—	**—**	—	**—**	2	**—**	2
Share of earnings (loss) in excess of equity interest[(1)]	**43**	(13)	**—**	—	**—**	—	**43**	(13)
Total adjustments to share of profit from equity accounted investees	**65**	60	**36**	32	**5**	28	**106**	120
Impairment charges and non-cash provisions	**—**	3	**—**	—	**—**	295	**—**	298
Adjusted EBITDA from equity accounted investees	**94**	117	**57**	46	**38**	11	**189**	174

(1) Pembina's proportionate share of results from investments in equity accounted investees with a preferred interest is presented in adjusted EBITDA as a 50 percent common interest.

12 Months Ended December 31 *($ millions)*	Pipelines		Facilities		Marketing & New Ventures		Total	
	2021	2020	**2021**	2020	**2021**	2020	**2021**	2020
Share of profit (loss) from equity accounted investees - operations	**124**	227	**80**	55	**77**	(314)	**281**	(32)
Adjustments to share of profit (loss) from equity accounted investees:								
Net finance costs	**72**	75	**31**	39	**1**	16	**104**	130
Depreciation and amortization	**156**	218	**104**	96	**22**	21	**282**	335
Unrealized loss on commodity-related derivative financial instruments	**—**	—	**—**	—	**—**	6	**—**	6
Share of earnings (loss) in excess of equity interest[(1)]	**58**	(53)	**—**	—	**—**	—	**58**	(53)
Total adjustments to share of profit from equity accounted investees	**286**	240	**135**	135	**23**	43	**444**	418
Impairment charges and non-cash provisions	**—**	—	**—**	—	**—**	295	**—**	295
Adjusted EBITDA from equity accounted investees	**410**	467	**215**	190	**100**	24	**725**	681

(1) Pembina's proportionate share of results from investments in equity accounted investees with a preferred interest is presented in adjusted EBITDA as a 50 percent common interest.

Adjusted Cash Flow from Operating Activities and Adjusted Cash Flow from Operating Activities per Common Share

Adjusted cash flow from operating activities is a non-GAAP measure which is defined as cash flow from operating activities adjusting for the change in non-cash operating working capital, adjusting for current tax and share-based compensation payment, and deducting preferred share dividends paid. Adjusted cash flow from operating activities deducts preferred share dividends paid because they are not attributable to common shareholders. The calculation has been modified to include current tax and share-based compensation payment as it allows management to better assess the obligations discussed below. Management believes that adjusted cash flow from operating activities provides comparable information to investors for assessing financial performance during each reporting period. Management utilizes adjusted cash flow from operating activities to set objectives and as a key performance indicator of the Company's ability to meet interest obligations, dividend payments and other commitments. Adjusted cash flow from operating activities per common share is a non-GAAP financial ratio which is calculated by dividing adjusted cash flow from operating activities by the weighted average number of common shares outstanding.

	3 Months Ended December 31		12 Months Ended December 31	
($ millions, except per share amounts)	**2021**	2020	**2021**	2020
Cash flow from operating activities	**697**	766	**2,650**	2,252
Cash flow from operating activities per common share – basic *(dollars)*	**1.27**	1.39	**4.82**	4.10
Add (deduct):				
Change in non-cash operating working capital	**30**	(75)	**100**	93
Current tax expense	**(31)**	(45)	**(286)**	(240)
Taxes paid, net of foreign exchange	**90**	7	**355**	296
Accrued share-based payment expense	**(20)**	(13)	**(76)**	(7)
Share-based compensation payment	**—**	—	**32**	45
Preferred share dividends paid	**(32)**	(37)	**(135)**	(150)
Adjusted cash flow from operating activities	**734**	603	**2,640**	2,289
Adjusted cash flow from operating activities per common share – basic *(dollars)*	**1.33**	1.10	**4.80**	4.16

13. ABBREVIATIONS

The following is a list of abbreviations that may be used in this MD&A:

Other	
AECO	Alberta Energy Company benchmark price for natural gas
B.C.	British Columbia
GAAP	Canadian generally accepted accounting principles
IFRS	International Financial Reporting Standards
NGL	Natural gas liquids
U.S.	United States
WCSB	Western Canadian Sedimentary Basin
Deep cut	Ethane-plus capacity extraction gas processing capabilities
Shallow cut	Sweet gas processing with propane and/or condensate-plus extraction capabilities
Kinder Acquisition	Pembina's acquisition of Kinder Morgan Canada Limited and the U.S. portion of the Cochin Pipeline system on December 16, 2019
Volumes	Volumes for Pipelines and Facilities are revenue volumes, defined as physical volumes plus volumes recognized from take-or-pay commitments. Volumes for Marketing & New Ventures are marketed NGL volumes. Volumes are stated in mboe/d, with natural gas volumes converted to mboe/d from MMcf/d at a 6:1 ratio.

Measurement		Regulators & Acts	
bpd	barrels per day	ABCA	*Business Corporations Act* (Alberta)
mbbls	thousands of barrels	AER	Alberta Energy Regulator
mbpd	thousands of barrels per day	BCEAO	British Columbia Environmental Assessment Office
mmbpd	millions of barrels per day	BCOGC	British Columbia Oil and Gas Commission
mmbbls	millions of barrels	BCUC	British Columbia Utilities Commission
mboe/d	thousands of barrels of oil equivalent per day	CER	Canadian Energy Regulator
mmboe/d	millions of barrels of oil equivalent per day	FERC	United States Federal Energy Regulatory Commission
MMcf/d	millions of cubic feet per day	ICA	*Interstate Commerce Act of 1887* (United States)
bcf/d	billions of cubic feet per day	NEB	National Energy Board
km	kilometer	NGA	*Natural Gas Act of 1938* (United States)
		PHMSA	Pipeline and Hazardous Material Safety Administration
		IAAC	Impact Assessment Agency of Canada

Investments in Equity Accounted Investees	
Pipelines:	
Alliance	50 percent interest in both Alliance Pipeline Limited Partnership and Alliance Pipeline L.P.
Ruby	50 percent convertible, cumulative preferred interest in Ruby Pipeline Holding Company L.L.C.
Grand Valley	75 percent jointly controlled interest in Grand Valley 1 Limited Partnership wind farm ("Grand Valley")
Facilities:	
Veresen Midstream	45 percent interest in Veresen Midstream Limited Partnership, which owns assets in western Canada serving the Montney geological play in northwestern Alberta and northeastern B.C. including gas processing plants and gas gathering pipelines and compression
Fort Corp	50 percent interest in Fort Saskatchewan Ethylene Storage Limited Partnership and Fort Saskatchewan Ethylene Corporation
Marketing & New Ventures:	
Aux Sable	An ownership interest in Aux Sable (approximately 42.7 percent in Aux Sable U.S. and 50 percent in Aux Sable Canada), which includes an NGL fractionation facility and gas processing capacity near Chicago, Illinois and other natural gas and NGL processing facilities, logistics and distribution assets in the U.S. and Canada, as well as transportation contracts on Alliance
CKPC	50 percent interest in the PDH/PP Facility
Cedar LNG	49.9 percent interest in the proposed floating LNG facility in Kitimat, British Columbia, Canada

Readers are referred to the AIF dated February 24, 2022 on www.sedar.com for additional descriptions.

14. FORWARD-LOOKING STATEMENTS & INFORMATION

In the interest of providing Pembina's security holders and potential investors with information regarding Pembina, including management's assessment of the Company's future plans and operations, certain statements contained in this MD&A constitute forward-looking statements or forward-looking information (collectively, "forward-looking statements"). Forward-looking statements are typically identified by words such as "anticipate", "continue", "estimate", "expect", "may", "will", "project", "should", "could", "would", "believe", "plan", "intend", "design", "target", "undertake", "view", "indicate", "maintain", "explore", "entail", "schedule", "objective", "strategy", "likely", "potential", "outlook", "aim", "purpose", "goal" and similar expressions suggesting future events or future performance.

By their nature, such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. Pembina believes the expectations reflected in those forward-looking statements are reasonable but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this MD&A should not be unduly relied upon. These forward-looking statements speak only as of the date of the MD&A.

In particular, this MD&A contains forward-looking statements pertaining to the following:

- future levels and sustainability of cash dividends that Pembina intends to pay to its shareholders and the dividend payment dates;
- planning, construction, locations, capital expenditure estimates, schedules, regulatory and environmental applications and anticipated approvals, expected capacity, incremental volumes, completion and in-service dates, rights, sources of product, activities, benefits and operations with respect to new construction of, or expansions on existing, pipelines, systems, gas services facilities, processing and fractionation facilities, terminalling, storage and hub facilities and other facilities or energy infrastructure, as well as the impact of Pembina's new projects on its future financial performance;
- future pipeline, processing, fractionation and storage facility and system operations and throughput levels;
- Pembina's commitment to, and the effectiveness and impact of, its sustainability goals and targets and its risk management policies;
- treatment under existing and proposed governmental regulatory regimes, including taxes, environmental, project assessment and GHG laws and regulations and related abandonment and reclamation obligations, and Indigenous, landowner and other stakeholder consultation requirements;
- Pembina's strategy and the development and expected timing of new business initiatives and growth opportunities and the impact thereof;
- increased throughput potential, processing capacity and fractionation capacity due to increased oil and gas industry activity and new connections and other initiatives on Pembina's pipelines and at Pembina's facilities;
- expected future cash flows and the sufficiency thereof, financial strength, sources of and access to funds at acceptable rates, future contractual obligations, future financing options, future renewal of credit facilities, availability of capital for capital expenditures, operating obligations, dividends, debt maturities and the use of proceeds from financings;
- Pembina's capital structure, including the sufficiency of the amount of leverage employed therein and future actions that may be taken with respect thereto, including expectations regarding the repurchase or redemption of common shares, repayments of existing debt, new borrowings, equity or hybrid securities issuances and the timing thereof;
- Pembina's expectations regarding the creditworthiness of its counterparties;
- tolls and tariffs and processing, transportation, fractionation, storage and services commitments and contracts;
- operating risks (including the amount of future liabilities related to pipelines spills and other environmental incidents) and related insurance coverage and inspection and integrity programs;
- the expected demand for, and prices and inventory levels of, crude oil and other petroleum products, including NGL;
- the potential impacts of the COVID-19 pandemic on Pembina, and Pembina's response thereto; and
- the impact of current market conditions on Pembina.

Various factors or assumptions are typically applied by Pembina in drawing conclusions or making the forecasts, projections, predictions or estimations set out in forward-looking statements based on information currently available to Pembina. These factors and assumptions include, but are not limited to:

- oil and gas industry exploration and development activity levels and the geographic region of such activity;
- the success of Pembina's operations;
- prevailing commodity prices, interest rates, carbon prices, tax rates and exchange rates;
- the ability of Pembina to maintain current credit ratings;
- the availability of capital to fund future capital requirements relating to existing assets and projects;
- expectations regarding Pembina's pension plan;
- future operating costs including geotechnical and integrity costs being consistent with historical costs;
- oil and gas industry compensation levels remaining consistent;
- in respect of current developments, expansions, planned capital expenditures, completion dates and capacity expectations: that third parties will provide any necessary support; that any third-party projects relating to growth projects will be sanctioned and completed as expected; that any required commercial agreements can be reached; that all required regulatory and environmental approvals can be obtained on the necessary terms in a timely manner; that counterparties will comply with contracts in a timely manner; that there are no unforeseen events preventing the performance of contracts or the completion of the relevant facilities, and that there are no unforeseen material costs relating to the facilities which are not recoverable from customers;
- in respect of the stability of Pembina's dividends: prevailing commodity prices, margins and exchange rates; that Pembina's future results of operations will be consistent with past performance and management expectations in relation thereto; the continued availability of capital at acceptable prices to fund future capital requirements relating to existing assets and projects, including but not limited to future capital expenditures relating to expansion, upgrades and maintenance shutdowns; the success of growth projects and new developments; future operating costs; that counterparties to agreements will continue to perform their obligations in a timely manner; that there are no unforeseen events preventing the performance of contracts; and that there are no unforeseen material construction or other costs related to current growth projects or current operations;
- prevailing regulatory regimes, including with respect to taxes, environmental, project assessment and GHG laws and regulations and tax pool utilization; and
- the amount of future liabilities relating to lawsuits and environmental incidents and the availability of coverage under Pembina's insurance policies (including in respect of Pembina's business interruption insurance policy).

The actual results of Pembina could differ materially from those anticipated in these forward-looking statements as a result of the material risk factors set forth below:

- the regulatory environment and decisions and Indigenous and landowner consultation requirements;
- the impact of competitive entities and pricing;
- labour and material shortages;
- reliance on third parties to successfully operate and maintain certain assets;
- reliance on key relationships, joint venture partners, and agreements and the outcome of stakeholder engagement;
- the strength and operations of the oil and natural gas production industry and related commodity prices;
- non-performance or default by counterparties to agreements which Pembina or one or more of its subsidiaries has entered into in respect of its business;
- actions by joint venture partners or other partners which hold interests in certain of Pembina's assets;
- adverse actions by governmental or regulatory authorities including changes in tax laws and treatment, changes in project assessment regulations, royalty rates, climate change initiatives or policies or increased environmental regulation;
- fluctuations in operating results;
- adverse changes in general economic and market conditions in Canada, North America and Internationally, including changes, or prolonged weakness, as applicable, in interest rates, foreign currency exchange rates, commodity prices, supply/demand trends and overall industry activity levels;
- risks related to the current and potential adverse impacts of the COVID-19 pandemic;
- constraints on, or the unavailability of adequate infrastructure;
- the political environment, in Canada, North America and Internationally, and public opinion;
- ability to access various sources of debt and equity capital, and on acceptable terms;
- adverse changes in credit ratings;
- technology and security risks;
- natural catastrophes; and
- the other factors discussed under "Risk Factors" herein and in Pembina's MD&A and AIF for the year ended December 31, 2021, which are available at www.sedar.com, www.sec.gov and through Pembina's website at www.pembina.com.

These factors should not be construed as exhaustive. Unless required by law, Pembina does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Any forward-looking statements contained herein are expressly qualified by this cautionary statement.