Pembina Pipeline Corporation
2021 SUSTAINABILITY UPDATE

## PERFORMANCE DATA

## Performance Data<sup>(1,2)</sup>

Indicator Title	Units	2017	2018	2019	2020
HEALTH AND SAFETY					
Employees					
Fatalities	#	0	0	0	0
Total recordable injury frequency (TRIF) $^{\scriptscriptstyle (3)}$	#	0.19	0.25	0.34	0.20
Preventable motor vehicle incident frequency (MVI) <sup>(4)</sup>	#	1.36	0.46	0.49	0.21
Lost time injury frequency rate (LTIFR) $^{(5)}$	#	0.06	0.05	0.08	0.04
Industry Average <sup>(6)</sup>				I	
Fatalities	#	0	0	0	0
Total recordable injury frequency (TRIF) $^{(3)}$	#	0.43	0.49	0.72	0.30
Preventable motor vehicle incident frequency (MVI) <sup>(4)</sup>	#	1.37	1.07	0.70	0.49
Third-Party Contractor					
Fatalities	#	0	0	0	0
Total recordable injury frequency (TRIF) $^{(3)}$	#	1.14	1.58	1.22	0.91
Preventable motor vehicle incident frequency (MVI) <sup>(4)</sup>	#	1.82	1.26	1.45	0.95
Lost time injury frequency rate (LTIFR) <sup>(5)</sup>	#	0.18	0.26	0.05	0.09
ASSET INTEGRITY					
Asset Integrity Investment					
Pipeline repairs & in-line inspections	\$ millions	48	47	59	54
Geotechnical	\$ millions	26	27	47	20
Facility integrity	\$ millions	8	3	3	1
Total asset integrity investment	\$ millions	82	77	109	75
Pipeline Repairs and In-Line Inspections (IL	ls)				
Integrity digs completed	#	296	284	218	217
Total ILIs completed (7)	#	91	88	97	120
Total ILI length <sup>(7)</sup>	km	3,440	3,328	3,810	6,369 <sup>(8)</sup>
Incidents (Spills, Releases and Significant Fa	ailures)				
Reported significant failures <sup>(9)</sup>	#	0	0	2	0
Reportable spills	#	7	5	8	13(10)
Reportable spill volume	m <sup>3</sup>	4	8	38	70(11)
Reportable spill intensity	m³spilled/ mmboe delivered	0.0060	0.0075	0.0352	0.0698 <sup>(12)</sup>

Indicator Title	Units	2017	2018	2019	2020
Emergency Preparedness and Response					
Emergency preparedness and response	#	45	51	70	43
exercises completed		10	51	10	10
Emergency preparedness and response	# of	187	242	315	282
training completed <sup>(13)</sup>	responders				
ENVIRONMENTAL STEWARDSHIP <sup>(14)</sup>					
Energy and GHG Emissions (15, 16)	, , , , , , , , , , , , , , , , , , , ,		T	1	1
Corporate shared services scope 1 GHG	tCO2e	_(18)	_(18)	_(18)	13,614
emissions <sup>(17)</sup>					-
Pipelines scope 1 GHG emissions <sup>(19)</sup>	tCO2e	53,061	68,454	79,877	80,466
Facilities scope 1 GHG emissions <sup>(19)</sup>	tCO2e	966,070	1,554,920	1,708,931	1,651,165
Total scope 1 GHG emissions <sup>(19)</sup>	tCO2e	1,019,131	1,623,374	1,804,303	1,745,245
Pipelines scope 1 emissions intensity	tCO2e/BOE	0.000122	0.000126	0.000120	0.000132
Facilities scope 1 emissions intensity	tCO2e/BOE	0.00427	0.00369	0.00416	0.00419
Total scope 1 emissions intensity	tCO2e/BOE	0.00154	0.00172	0.00168	0.00174
Corporate shared services scope 2 GHG emissions <sup>(17)</sup>	tCO2e	_(18)	_(18)	_(18)	6,526
Pipelines scope 2 GHG emissions (20)	tCO2e	335,386	475,299	564,766	551,447
Facilities scope 2 GHG emissions <sup>(20)</sup>	tCO2e	686,223	936,071	830,926	828,537
Total scope 2 GHG emissions <sup>(20)</sup>	tCO2e	1,021,609	1,411,370	1,401,578	1,386,511
Pipelines scope 2 emissions intensity	tCO2e/BOE	0.000771	0.000887	0.000847	0.000906
Facilities scope 2 emissions intensity	tCO2e/BOE	0.00303	0.0022	0.00202	0.00210
Total scope 2 emissions intensity	tCO2e/BOE	0.00154	0.00150	0.00130	0.00138
Corporate total scope 1 and scope 2 emission intensity	tCO2e/BOE	0.00309	0.00315	0.00298	0.00312 <sup>(21)</sup>
Methane (CH <sub>4</sub> ) emissions	metric tonnes	6,633	5,327	5,012	5,253 <sup>(22)</sup>
Total energy consumed	GWh	1,365	2,206	2,164	2,309
Limiting regulations <sup>(23)</sup>	%	56	45	48	83
Other Emissions					
Total NOx emissions	metric tonnes	2,101	3,262	3,467	3,232
Total SOx emissions	metric tonnes	778	1,581	1,651	1,725
Total VOCs	metric tonnes	1,312	10,183	4,879	6,218
Total particulate matter	metric tonnes	182	241	299	309
LAND USE & BIODIVERSITY					
High-risk assessments completed as part of historic liability program	%	100	100	100	100
Well sites receiving reclamation certificate as part of wellsite reclamation program	% (cumulative)	34	46	52	60

Indicator Title	Units	2017	2018	2019	2020
	acres	25.4	61.8	31.8	53.71
Land reclaimed, protected, or restored	(cumulative)	(169.8)	(231.6)	(263.4)	(371.1)
WASTE					
Waste (24)					_
Total waste (non-hazardous + hazardous)	metric tonnes	2,681,680	1,953,026	704,497	1,295,926
Total non-hazardous waste	metric tonnes	2,663,064	1,898,465	652,374 <sup>(25)</sup>	1,244,823
Non-hazardous waste diverted from landfill (i.e. recycled) <sup>(26)</sup>	metric tonnes	101	3,387	3,038	3,613
Non-hazardous waste sent to disposal (excluding produced water) <sup>(27)</sup>	metric tonnes	100,010	90,447	109,636	84,428
Non-hazardous produced water sent to disposal <sup>(28)</sup>	metric tonnes	2,562,953	1,804,631	539,700	1,156,782
Total hazardous waste	metric tonnes	18,615	54,561	52,123	51,103
Hazardous waste sent for treatment	metric tonnes	507	1,188	1,578	25,039 <sup>(29)</sup>
Hazardous waste sent to disposal (i.e. landfill, incineration)	metric tonnes	18,109	53,373	50,545	26,064
WATER					
Water (30)					
Total water withdrawal <sup>(31)</sup>	million m <sup>3</sup>	2.219	1.870	1.555	1.900
Total water disposed (i.e. regulated disposal facility or deep injection well)	million m <sup>3</sup>	2.049	0.780	0.152	0.711 (32)
Total water returned to the environment	million m <sup>3</sup>	0.870	1.089	1.039	1.173
INDIGENOUS & TRIBAL RELATIONS					
Environmental Technician Program Perform	mance				
Program Technicians trained	#	20	2	22	0 <sup>(33)</sup>
Program Technicians subsequently employed by band-owned businesses	#	41	18	14	9(33)
Communities represented in program	#	15	7	6	6
Pembina projects utilizing Technicians	#	6	12	14	1(33)
COMMUNITY INVESTMENT (34)	<u> </u>				
Summary of Community Investment Progra	am				
Value to communities (value of company					
investments, employee giving &	\$ millions	6.9	11.4	14.5	9.4
volunteering program)					
Summary of Company Community Investment	nent				
Cash investments (direct only)	\$ millions	4.1	7.5	10.0	5.6
In-Kind investments	\$ millions	_(18)	_(18)	0.058	0.075
Employee giving	\$ millions	2.4	2.8	3.3	3.1
Employee time during work hours	\$ millions	0.24	0.33	0.47	0.11(35)
Other	\$ millions	0.16	0.77	0.67	0.52

Indicator Title	Units	2017	2018	2019	2020
Summary of Employee Volunteering <sup>(35)</sup>					
Employee and contractor hours volunteered (during working hours)	#	4,049	5,562	7,926	1,810
Hours per employee (during working hours)	#	2.5	2.9	3.2	0.7
WORKFORCE				1	1
Workforce Overview (36, 37)					
Permanent employees	#	1,528	1,894	2,515	2,415
Invoicing contractors (38)	#	539	750	823	885
Fixed-term employees	#	75	86	127	48
New hire permanent employees	#	287	458	494	166
Canadian Workforce Composition (39)					
Man	#	1,101	1,377	1,702	1,634
Men	%	72	71	73	73
	#	427	563	634	597
Women	%	28	29	27	27
	#	65	78	88	87
Indigenous peoples	%	4	4	4	4
	#	14	16	18	15
Persons with disabilities	%	1	1	1	1
Visible minorities	#	145	220	261	257
VISIBLE HIMORICES	%	9	11	11	12
US Workforce Composition <sup>(40)</sup>					
Men	#	_(18)	_(18)	195	194
INCII	%	_(18)	_(18)	90	92
Women	#	_(18)	_(18)	21	18
women	%	_(18)	_(18)	10	8
Minorities	#	_(18)	_(18)	12	11
	%	_(18)	_(18)	6	5
Canada and US Workforce Performance (36	)	1	1	r	1
Total employee turnover	%	7.8	7.8	8.6	10.9
Voluntary employee turnover	%	3.7	4.9	4.9	3.1
Canada and US Workforce Diversity <sup>(36)</sup>					
Officer Team	# of Male	5	7	7	7
	# of Female	0	0	0	0 (41)
Vice Presidents	# of Male	13	15	14	15
	# of Female	2	3	4	6
Senior managers & managers	# of Male	75	129	158	148
	# of Female	36	47	64	57
Other employees	# of Male	1,005	1,206	1,676	1,639

Indicator Title	Units	2017	2018	2019	2020
	# of Female	386	486	591	543
Canada and US Workforce Age Demographi	C <sup>(36, 42)</sup>			•	
Total employees aged over 50+	#	_(18)	456	624	609
	%	_(18)	24	25	25
The last sector	#	_(18)	1,205	1,530	1,540
Total employees aged between 30 and 49	%	_(18)	64	63	64
	#	_(18)	233	294	266
Total employees under 30	%	_(18)	12	12	11
ECONOMIC CONTRIBUTIONS (43)					
Company Financial Snapshot					
TSX common share trading price (37)	\$/share	45.51	40.51	48.13	30.10
TSX 52-week trading range	\$/share	46.14 - 39.26	47.52 -	50.46 -	53.22 -
ISA 52-week trading range	\$/SIIdle	40.14 - 39.20	38.49	41.23	16.56
Market capitalization (37, 44)	\$ millions	22,892	20,580	26,375	16,555
Total enterprise value <sup>(37,45)</sup>	\$ millions	34,556	32,235	40,468	31,617
Common share dividend paid	\$/share	2.02	2.23	2.35	2.51
Yield (37)	%	4.75	5.63	5.24	8.37
Corporate credit rating (46)		BBB/BBB	BBB/BBB	BBB/BBB	BBBH/BBB
Capital Investments and Acquisitions (47)					
Capital investments	\$ millions	1,839	1,226	1,645	1,029
Acquisitions	\$ millions	6,400	0	4,255	0
Economic Value Generated, Distributed and	Retained			•	
Net revenue <sup>(48)</sup>	\$ millions	2,238	2,836	3,120	3,444
Total Economic Value Generated (49)	\$ millions	2,238	2,836	3,120	3,444
Operating and general and administrative	\$ millions	263	324	449	462
expenses <sup>(50)</sup>	Ş THILLIOTIS				
Employee wages and benefits	\$ millions	350	420	339	370
Payments to governments <sup>(51)</sup>	\$ millions	94	123	274	323
Payments to providers of capital <sup>(52)</sup>	\$ millions	1,029	1,561	1,659	1,996
Community investments	\$ millions	4	8	10	5
Total Economic Value Distributed	\$ millions	1,740	2,435	2,731	3,156
Total Economic Value Retained	\$ millions	498	401	389	288
Income Taxes Paid (53)				•	
Canadian taxes paid	\$ millions	14	75	227	237
US taxes paid	\$ millions	34	(5)	(17)	3

## Abbreviations

km - kilometres m<sup>3</sup> – metres cubed mmboe – millions of barrels of oil equivalent tCO2e – tonnes of carbon dioxide equivalent BOE- barrels of oil equivalent GWh – gigawatt hours

## Footnotes

<sup>1</sup> Unless otherwise noted, the data reflects all Pembina majority-owned and operated assets. Assets which are jointly owned and which Pembina does not operate are excluded. Assets assumed by way of the acquisition of Kinder Morgan Canada Limited and the U.S. portion of the Cochin Pipeline system, which closed on December 16, 2019, have been included in 2020 reported data.

<sup>2</sup> Where noted, certain prior periods have been restated from data reported in Pembina's 2020 Sustainability Report as a result of newly available information or a change in methodology.

<sup>3</sup> Total recordable injury frequency rate (TRIF) is defined as the number of recordable injuries per 200,000 hours of work.

<sup>4</sup> Motor vehicle incident frequency rate (MVI) is the number of preventable incidents per 1,000,000 kms driven.

<sup>5</sup> Lost Time Injury Frequency Rate (LTIFR) is defined as the number of lost time injuries per 200,000 hours of work. Note, prior periods have been revised as previous disclosure was based on 1,000,000 hours of work.

<sup>6</sup> Industry average based on employee data from member companies reported by the Canadian Energy Pipeline Association (CEPA).

<sup>7</sup> Total ILIs completed includes maintenance and post-construction ILIs.

<sup>8</sup> The increase in total ILI length completed in 2020 is driven by inspections on acquired assets.

<sup>9</sup> Pembina uses CEPA's definition of a significant failure incident – a failure incident that includes one or more of the following: caused a serious injury or fatality, caused a liquid release of greater than 8 m<sup>3</sup> (50 US barrels), produced an unintentional ignition or fire, or occurred as a rupture.
<sup>10</sup> Maintaining the integrity of our energy infrastructure is integral to the health and safety of the communities and environment where we

operate. In 2020, 69% of reportable spills were of small volume (1m<sup>3</sup> or less) while 23% were marginally larger (1m<sup>3</sup> to 5 m<sup>3</sup>) and the remaining 8% is related to the Fox Creek spill as discussed below.

<sup>11</sup> As noted above, the majority of 2020 reportable spills were of small volume. A large portion (80%) of the 2020 total reportable spill volume of 70 m<sup>3</sup> is attributable to a single event. On February 27<sup>th</sup>, 2020, a 55.9 m<sup>3</sup> release of crude oil occurred at the Fox Creek pump station due to facility piping equipment failure. The release was fully contained on site within secondary containment berms.

<sup>12</sup> 2020 reportable spill intensity increase influenced by Fox Creek pump station release event within secondary containment berms, and a decrease in mmboe.

<sup>13</sup> A "responder" is a Pembina employee or contractor trained to support during an emergency. Prior periods cumulative training totals have been replaced with individual responders trained annually.

<sup>14</sup> The reported emissions are based on operational control and direct emissions sources primarily using metered fuel volumes or invoiced volumes; however, in instances where metering data is not available, calculated emissions from sources were determined using industry best practices and accepted regulatory methodologies. Pembina participates in the following applicable regulated emissions reporting programs: Environment and Climate Change Canada Greenhouse Gas Emissions Reporting Program, British Columbia Greenhouse Gas Industrial Reporting and Control Act, Alberta Specified Gas Reporting Regulations, Alberta Technology, Innovation and Emission Reduction Regulations, Saskatchewan Management and Reduction of Greenhouse Gases Regulations and Standards, Ontario Greenhouse Gas Emissions Reporting (O Reg. 390/18) and the US Environmental Protection Agency 40 CFR Part 98 Reporting Regulations.

<sup>15</sup> Pembina has obtained independent limited assurance of scope 1 and scope 2 emissions for the year ended December 31, 2020.

<sup>16</sup> Adjustments made to prior period include production data updates (2018 and 2019) and inclusion of emissions attributable to Kinder Morgan Canada Limited and the U.S. portion of the Cochin Pipeline system (2019).

<sup>17</sup> Corporate shared services added to the emission inventory for 2020, representing GHG emissions not associated with any one operational division (e.g., corporate head office and district field offices, fleet vehicles, corporate aircraft, communication towers).

<sup>18</sup> Metrics are not available as data was not tracked on a comparable basis for prior periods.

 $^{19}$  Scope 1 GHG Emission sources in the reported data include emissions from stationary combustion equipment, fugitive emission leaks, as well as flaring, incineration, venting and mobile equipment operated by Pembina. Data not included in the scope 1 emissions are fugitive emissions of SF<sub>6</sub> from electrical gear due to limited available operational data at the time of publication. Other exclusions include construction related emissions, fugitive emissions from mobile equipment refrigeration, and incidental emissions from spills.

<sup>20</sup> Scope 2 GHG Emission sources in the reported data include the electrical consumption used to power corporate shared services, pipelines and facility assets operated by Pembina. Imported waste heat is also included in this report as a scope 2 emission.

<sup>21</sup> Total volume BOE decrease resulted in increased emissions intensity for 2020.

<sup>22</sup> Increase in methane emissions largely attributable to an enhanced leak detection and repair (LDAR) program that has increased reporting, as well as vented emissions at the Duvernay Gas Processing Plant, which were addressed with an operational improvement in 2021.

<sup>23</sup> Percent of emissions which fall under emissions-limiting regulations such as a carbon tax or emission trade system (i.e., Alberta Technology, Innovation and Emission Reduction regulations effective 2020).

<sup>24</sup> Prior period waste data has been updated to include produced water. Liquid waste has been converted from m<sup>3</sup> to metric tonnes at a 1:1 conversion.

<sup>25</sup> Variance in total non-hazardous waste largely attributable to produced water. Please see footnote 28.

<sup>26</sup> Prior period non-hazardous waste diverted from landfill (i.e. recycled) adjusted to remove produced water.

<sup>27</sup> Prior period non-hazardous waste sent for disposal adjusted to remove produced water.

<sup>28</sup> Construction of a Redwater cavern occurred between 2017 to 2019; cavern construction uses considerably more water than cavern maintenance (washing). The fluctuations in produced water in 2019 is a result of water taken for cavern construction and stored, and subsequently disposed of in 2020. Produced water numbers will fluctuate with cavern washing activity completed as needed.

<sup>29</sup> Increase in hazardous waste sent for treatment in 2020 largely attributable to assets assumed by way of the acquisition of Kinder Morgan Canada Limited.

<sup>30</sup> Certain entries include estimated volumes where actuals are not available.

<sup>31</sup> Total water withdrawn increased in 2020 in relation to integrity testing of an asset expansion.

<sup>32</sup> Increase in total water disposed attributable to produced water stored in 2019 and disposed in 2020.

<sup>33</sup> Environmental Technician program in 2020 was limited due to health and safety risks related to the Covid-19 pandemic.

<sup>34</sup> Assets excluded from Community Investment include: VMLP and Aux Sable

<sup>35</sup> Employee volunteering in 2020 was limited due to health and safety risks related to the Covid-19 pandemic.

<sup>36</sup> Workforce data for 2018 is inclusive of certain assets which Pembina assumed by way of the acquisition of Veresen Inc., which closed on October 1, 2017 including Alliance Pipeline, Jordan Cove, Alberta Ethane Gathering System, and Veresen Midstream Limited Partnership. Workforce data for 2019 includes the assets assumed by way of the acquisition of Kinder Morgan Canada Limited and the U.S. portion of the Cochin Pipeline system, which closed on December 16, 2019.

<sup>37</sup> At December 31 each year.

<sup>38</sup> Represents invoicing contractors as of December 31. These number fluctuate throughout the year based on business requirements.

<sup>39</sup> Represents Canadian workforce only. Temporary employees added in 2018 and onward.

<sup>40</sup> Includes permanent employees only. Data only available from 2019 onward. Data is representative of the last pay period of each reported year. Classification is as per US Equal Employment Opportunity Commission.

<sup>41</sup>As of March 2021, our Officer Team was made up of five males and one female.

<sup>42</sup> Excluded from the 2019 figures are 67 U.S. employees associated with the acquisition of Kinder Morgan Canada Limited and the U.S. portion of the Cochin Pipeline system, which closed on December 16, 2019. Diversity information (including age) was not tracked for these employees, however this subset is included in 2020.

<sup>43</sup> This report refers to the terms net revenue and adjusted earning before interest, taxes, depreciation and amortization (Adjusted EBITDA), which do not have any standardized meaning under IFRS ("Non-GAAP Measures"). Please refer to "Non-GAAP Measures" in the Company's other disclosure including the quarterly and annual Management Discussion and Analysis available on SEDAR or at <u>www.pembina.com</u>. This report also refers to certain other terms commonly used to satisfy sustainability reporting requirements. These terms are not necessarily used by Pembina in the management of business. This economic section accounts for all Pembina assets excluding Equity Accounted Investees.

<sup>44</sup> Market capitalization includes common shares.

<sup>45</sup> Total enterprise value includes common shares, convertible debentures, preferred shares and senior debt less cash.

<sup>46</sup> DBRS and S&P.

<sup>47</sup> This economic section accounts for all Pembina assets excluding Equity Accounted Investees.

<sup>48</sup> Net Revenue represents revenue less cost of sales. See "Non-GAAP Measures".

<sup>49</sup> Economic Value Generated is equivalent to Net Revenue. See "Non-GAAP Measures".

<sup>50</sup> Operating expenses plus general and administrative expenses less personnel expenses.

<sup>51</sup> Current income taxes plus property taxes.

 $^{\rm 52}$  Dividends paid plus net finance cost plus interest paid during construction.

<sup>53</sup> Current income taxes.