PBI ACTUARIES & CONSULTANTS

# Report on the Actuarial Valuation as of December 31, 2023

## Telecommunication Workers Pension Plan

**Canada Revenue Agency**
**Registration Number 0397935**

**Office of the Superintendent of**
**Financial Institutions Canada**
**Registration Number 55745**

June 26, 2024

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# Executive summary

## Purpose

At the request of the Trustees of the Telecommunication Workers Pension Plan (the "Plan"), we have prepared this report, which presents the results of an actuarial valuation performed on the Plan as at December 31, 2023. The purposes of this actuarial valuation were:

(i) to determine the financial position of the Plan on a going concern basis as at December 31, 2023;

(ii) to determine the solvency position of the Plan as at December 31, 2023, including any solvency deficiency and the solvency ratio as required under the Pension Benefits Standards Act, 1985 (the "PBSA-85") and Regulations thereto;

(iii) to determine the funding requirements of the Plan as at December 31, 2023 under the PBSA-85 and Regulations thereto;

(iv) to analyze the experience of the Plan since the date of the last actuarial valuation, December 31, 2020;

(v) to estimate the additional actuarial liabilities as at December 31, 2023 if the accrued pension benefit credits of active and disabled participants were updated to reflect more current earnings at each of January 1, 2025, 2026 and 2027 and if the target level of indexation to pensions in payment, defined in the Plan's Funding Policy as 100% of the increase in the Consumer Price Index ("CPI"), is granted at each of April 1, 2025, 2026 and 2027; and

(vi) to provide information required for the ongoing administration of the Plan.

The numbers in this report are rounded to the nearest $1,000, where noted with "(in 000's)."

## Intended Users

The intended users of this report, for the purposes stated above, are the following:

- The Trustees of the Plan;
- The Telecommunication Workers Union (TWU) United Steelworkers Local Union 1944;
- TELUS (the "Company");
- The Plan administrator;
- The Plan's auditor;
- The Office of the Superintendent of Financial Institutions Canada ("OSFI");
- The Canada Revenue Agency ("CRA"); and
- Any other person entitled to access the report pursuant to Section 28 of the PBSA-85.

If the listed users of the report wish to use the report for a purpose that is not stated in the report, then PBI Actuarial Consultants Ltd.'s approval for the intended use should be sought. If any other party wishes to use the report for any purpose, the approval of the Trustees must be obtained, and PBI Actuarial Consultants Ltd.'s prior consent must be obtained before such party makes use of the report.

# Terms of Appropriate Engagement

The terms of engagement with respect to the preparation of this actuarial valuation include:

- This actuarial valuation includes a review of the Plan's going concern and solvency position as at December 31, 2023 and must be filed with OSFI and CRA;
- The going concern financial position is to be determined using the Accrued Actuarial Cost Method;
- The minimum funding requirements are to be determined using the Traditional Unit Credit Actuarial Cost Method;
- For the purpose of the going concern actuarial valuation, a provision for adverse deviation should be included in the actuarial valuation interest rate and the mortality table, as described in Appendix B; and
- For the purpose of the going concern actuarial valuation, the going concern value of assets is to be determined using the market value of assets as described in Appendix B.

# Significant changes since the last actuarial valuation

## Plan Provisions

This actuarial valuation reflects the Plan provisions as at January 1, 2024.

Since the last actuarial valuation carried out as at December 31, 2020, the following amendments have had material impact on the financial position of the Plan:

- The Trustees adopted resolutions to implement a final 3-year average earnings update at January 1, 2022, January 1, 2023 and January 1, 2024 in respect of active and disabled participants. The cost of providing these benefit updates is included in the actuarial valuation as at December 31, 2023.
- The Trustees adopted resolutions to implement a 1.1% increase effective April 1, 2022 for benefits in payment in respect of members who retired on or prior to January 1, 2021, a 3.5% increase effective April 1, 2023 for benefits in payment in respect of members who retired on or prior to January 1, 2022, and a 3.0% increase effective April 1, 2024 for benefits in payment in respect of members who retired on or prior to January 1, 2023. The cost of providing these increases has been included in the actuarial valuation as at December 31, 2023.

Other than these changes, there have been no changes to the Plan provisions which have had a material impact on the financial condition of the Plan.

## Voluntary Departure and Early Retirement Incentive Programs

During the years 2021, 2022, and 2023, the Voluntary Departure Incentive Program ("VDIP") and the Early Retirement Incentive Program ("ERIP"), as pursuant to the Collective Agreement ratified in 2011, offered incentives to Plan participants, who met certain criteria, to terminate or retire as applicable, under programs known as "ERIP/VDIP."

Participants who elected the "ERIP-Equivalent" incentive are entitled to the benefits of a Former Participant under the Plan. If they elect to retire early and they receive the consent of the Trustees, they will be entitled to a subsidized early retirement pension. Participants who elected the "VDIP" incentive are called Incented Terminated

Participants under the Plan and are only entitled upon early retirement to the actuarial equivalent of their deferred retirement benefit payable as of their normal retirement date.

The Company and the Union agreed that the Company would make additional contributions to the Plan as a result of the implementation of the ERIP/VDIP programs in 2005. The Collective Agreement effective April 16, 2023, specifies how the amount of subsequent contributions is to be determined commencing in 2024.

## Actuarial Basis

Since the last actuarial valuation, there were no changes to the asset valuation method. The actuarial cost method has changed to Accrued Benefit from Aggregate Accrued Benefit.

The assumptions used in the solvency valuation have been updated to reflect market conditions at the actuarial valuation date. In addition, the method of settlement assumed for pensioners and participants eligible to retire has changed from a replicating portfolio to annuity purchase.

In addition, there were changes to the going concern actuarial assumptions as noted below:

- The actuarial valuation interest rate has been increased to 4.50% per annum from 3.00% per annum;
- The long-term rate of inflation assumption has increased to 2.05% per annum from 2.00% per annum;
- The earnings increase assumption has been increased to 3.50% per annum from 3.00% per annum; and
- The base mortality rates have been reduced to 95% of the mortality rates assumed in the last actuarial valuation.

A summary of the actuarial basis for the going concern actuarial valuation appears in Appendix B.

A summary of the actuarial basis for the solvency valuation appears in Appendix C.

# Government Filings

This report should be filed with OSFI as required pursuant to the PBSA-85 and with CRA pursuant to Section 147.2(3) of the *Income Tax Act (Canada).*

# Subsequent Events

We completed this actuarial valuation on June 17, 2024.

To the best of our knowledge and on the basis of our discussions with the Plan Administrator's Office, it is our understanding that there were no events which occurred between the actuarial valuation date and the date this actuarial valuation was completed which would have a material impact on the results of the actuarial valuation.

# Conclusions

In our opinion, the actuarial valuation of the Plan as at December 31, 2023 indicates, on the basis of the assumptions used, that:

a) The assets together with expected future contributions based on the Collective Agreement or Participation Agreement (the “Agreements”) and investment earnings on the Fund, will be sufficient to finance the benefits provided under the Plan. The funded ratio, as defined under the PBSA-85, is not less than 1.00 as at the actuarial valuation date;

b) There exists no solvency deficiency as defined under the PBSA-85 as at the actuarial valuation date. The solvency ratio as at December 31, 2023 is 1.60;

c) The contributions required to be made to the Fund by the Participants and the Employers pursuant to the Agreements, together with the excess of the actuarial value of assets over accrued liabilities at the actuarial valuation date, are estimated to be sufficient to meet the annual funding requirements of the PBSA-85 for the period until the next scheduled actuarial valuation as of December 31, 2026; and

d) The financial condition of the Plan will allow the Trustees to update the benefit credits accrued to active and disabled participants as at January 1 of each of the next three years and grant increases to the benefits in payment equal to 100% of the increase in the Consumer Price Index, as at April 1 of each of the next three years starting with an increase at April 1, 2025. These updates will not jeopardize the financial position of the Plan provided that the actual Plan experience from December 31, 2023 to the date on which the update is granted does not vary significantly from that expected by the assumptions made in this report.

# Actuarial Opinion

The report and opinions given herein apply for the four years following the actuarial valuation date. The next actuarial valuation of the Plan for the purposes stated in this report must be performed with an actuarial valuation date no later than December 31, 2026, as required by the PBSA-85.

This actuarial valuation was based on membership data and other supplemental information and statistics provided by the Plan Administrator as at December 31, 2023, together with the financial statements supplied by CIBC Mellon Global Securities Services Company and the audited financial statements prepared by Smythe LLP. We have reviewed the data to test for reasonableness and consistency with the data provided for the last actuarial valuation as at December 31, 2020 by the Plan Administrator.

In our opinion,

- the participant data on which the actuarial valuation is based are sufficient and reliable for the purpose of the actuarial valuation;
- the assumptions are appropriate for the purposes of the actuarial valuations;
- the methods employed in the actuarial valuation are appropriate for the purposes of the actuarial valuations; and
- the value of the Plan assets, net of windup expenses, would be greater than the actuarial liabilities if the Plan were to be wound up on the actuarial valuation date.

The required rate of Employer and Employee contributions provided for in the current Agreements and the assets of the Plan and future investment earnings thereon, should be adequate to provide the benefits accruing under the Plan. Nonetheless, emerging experience under the Plan differing from the assumptions will result in gains or losses which will be revealed in future actuarial valuations.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. The actuarial valuations have been determined in accordance with the funding and solvency standards prescribed by the PBSA-85 and Regulation thereto and the requirements of the *Income Tax Act (Canada)* and Regulation thereto.

Respectfully submitted,
**PBI Actuarial Consultants Ltd.**

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Fellow, Canadian Institute of Actuaries

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Vancouver, BC
June 26, 2024

# Section 1: Funded position – going concern

## Accrued Benefit Actuarial Cost Method

A going concern actuarial valuation, which assumes that the Plan will continue indefinitely, was performed to determine the funded position of the Plan at the actuarial valuation date and to determine whether over the long term, the Plan is likely to have sufficient assets to provide the benefits promised.

| | December 31, 2023 (in 000's) | December 31, 2020 (in 000's) |
|---|---|---|
| **A. Actuarial Value of Assets** | | |
| Actuarial value of assets | $ 5,339,820 | $ 5,609,129 |
| **B. Actuarial Liabilities** | | |
| Actuarial liabilities for accrued benefits in respect of: | | |
| • Active participants | $ 266,540 | $ 570,968 |
| • Disabled participants | 63,722 | 96,604 |
| • Transferred to management participants | 61,330 | 83,289 |
| • Terminated vested participants[1,2] | 190,648 | 192,526 |
| • Pensioners[3] | 2,905,782 | 3,133,145 |
| • Voluntary Contribution Accounts | 4,870 | 5,230 |
| Total actuarial liabilities | $ 3,492,892 | $ 4,081,762 |
| **C. Funded Position** | | |
| Excess of actuarial value of assets over actuarial liabilities for accrued benefits (A.) - (B.) | $ 1,846,928 | $ 1,527,367 |
| **D. Funded Ratio** | | |
| Ratio of actuarial value of assets to accrued actuarial liabilities (A. / B.) | 1.53 | 1.37 |

The approximate actuarial present value of the provision for adverse deviations included in the actuarial liabilities above is as follows:

- Margin included in the Interest rate = $573M; and
- Margin included in the pre- and post-retirement mortality rates = $38M.

The approximate actuarial present value of future expenses payable by the pension plan and included in the actuarial liabilities above is as follows:

- Provision for administrative expenses = $29M; and
- Provision for direct investment management expenses = $38M.

1 Including Pending Terminations and paid out after actuarial valuation date.

2 Including non-vested Lives and untraced deferred vested Lives.

3 Including Beneficiaries and Survivors.

## Reconciliation of Going-Concern Funded Position

The following exhibit provides an approximate analysis of the major factors which have contributed to change in the going concern funded position since the prior actuarial valuation.

| | | (in 000's) | (in 000's) |
|---|---|---|---|
| **A.** | **Excess of assets over actuarial liabilities for accrued benefits at December 31, 2020** | $1,527,400 | |
| | **Plus** • interest adjustment | 141,600 | |
| | Expected excess of assets over actuarial liabilities for accrued benefits at December 31, 2023 | | $1,669,000 |
| **B.** | **Gains/(Losses) from Economic Experience:** | | |
| | • net investment returns greater/(less) than assumed | $(163,500) | |
| | • excess/(shortfall) of Employer and Employee contributions over/(under) the actuarial liabilities for benefit credits earned during the same period, considering the increases in earnings | (36,800) | $(200,300) |
| **C.** | **Gains/(Losses) from Demographic Experience:** | | |
| | • retirement experience not in ERIP/VDIP program | $ 5,900 | |
| | • mortality experience | 400 | $ 6,300 |
| **D.** | **Gains/(loss) due to all other economic and demographic experience factors** | $ 3,800 | $ 3,800 |
| **E.** | **Gains/(Losses) from Plan amendments** | | |
| | • benefit improvements during the intervaluation period – added actuarial liabilities with respect to updating of benefit credits for active and disabled participants at January 1, 2022, January 1, 2023 and January 1, 2024 and increasing pensions in payment at April 1, 2022, April 1, 2023 and April 1, 2024 | $(243,800) | $(243,800) |
| **F.** | **Fund financial position at December 31, 2023 on prior actuarial valuation assumptions = A.+B.+C.+D.+E.** | | $1,235,000 |
| **G.** | **Change in actuarial assumptions** | | |
| | • change in the interest rate assumption from 3.00% to 4.50% | $ 649,400 | |
| | • change in the mortality assumptions | (37,500) | $ 611,900 |
| **H.** | **Excess of assets over actuarial liabilities for accrued benefits at December 31, 2023** | | |
| | Fund financial position at December 31, 2023 on current actuarial valuation assumptions and including updating benefit credits for active and disabled participants at January 1, 2024 and increasing pensions in payment at April 1, 2024 | | $1,846,900 |

## Results of Cost Calculations in respect of potential benefit improvements

In the same manner as has been done in past actuarial valuations, we calculated the estimated cost (i.e. increase in actuarial liabilities) that would result if pension benefit credits of active and disabled participants are updated as of January 1, 2025, 2026 and 2027 to reflect more current earnings and if increases to pensions in payment equal to 100% of the increase in the Consumer Price Index, is granted at each of April 1, 2025, 2026 and 2027. The estimated costs are shown below:

| | December 31, 2023 (in 000's) |
|---|---|
| (a) if the active and disabled participants' pension benefit credits are updated at January 1, 2025, 2026 and 2027 respectively, the estimated additional accrued actuarial liabilities under the Plan as at December 31, 2023, and assuming accrued benefits will be updated each year up to: | |
| January 1, 2025 and no further updating thereafter | $ 5,802 |
| January 1, 2026 and no further updating thereafter | $ 13,522 |
| January 1, 2027 and no further updating thereafter | $ 20,991 |
| (b) if the participants' benefits in payment are increased by 100% of the increase in CPI on April 1, 2025, 2026 and 2027 respectively, the estimated additional accrued actuarial liabilities under the Plan as at December 30, 2023, and assuming benefits in payment will be updated each year up to: | |
| April 1, 2025 and no further updating thereafter | $ 54,500 |
| April 1, 2026 and no further updating thereafter | $ 105,576 |
| April 1, 2027 and no further updating thereafter | $ 154,379 |
| Estimated funded position at December 31, 2023 after allowing the improvements described in (a) and (b) above (i.e., updates through to January 1, 2027 and April 1, 2027): | |
| Funded ratio on going concern basis | 1.46 |
| Solvency ratio | 1.53 |

# Section 2: Funded position – solvency

A solvency actuarial valuation, which is required under the PBSA-85, is one in which the Plan's assets and liabilities are valued on a Plan termination basis. The solvency actuarial valuation was based on the Plan provisions in effect as at December 31, 2023 (including updating benefit credits for active and disabled participants at January 1, 2024 and increasing pensions in payment at April 1, 2024) such provisions include the restriction that the Trustees shall not grant consent for subsidized reduction (that is, unreduced benefits) on early retirement other than actuarial reduction for all active and inactive non-retired participants, except for the ERIP participants. To determine the solvency deficiency or solvency excess, the PBSA-85 permits certain adjustments to be made to the solvency assets.

| | December 31, 2023 (in 000's) | December 31, 2020 (in 000's) |
|---|---|---|
| **A. Solvency Assets** | | |
| i. Market value of assets plus receivable[1] | $ 5,339,820 | $ 5,609,129 |
| ii. Allowance for Plan windup expenses | (3,979) | (2,374) |
| iii. Solvency assets (assets less expenses) | $ 5,335,841 | $ 5,606,755 |
| **B. Solvency Liabilities** | | |
| ***Settled by lump sum transfer:*** | | |
| i. Active participants | $ 122,072 | $ 314,548 |
| ii. Disabled participants | 15,489 | 25,135 |
| iii. Transferred to management participants | 21,998 | 42,730 |
| iv. Terminated vested participants | 84,722 | 98,454 |
| *v. Total settled through lump sum transfer (Sum Bi. to Bv.)* | $ 244,281 | $ 480,867 |
| ***Settled by annuity purchase/replicating portfolio:*** | | |
| vi. Active participants | $ 84,489 | $ 223,257 |
| vii. Disabled participants | 34,656 | 67,613 |
| viii. Transferred to management participants | 16,237 | 23,185 |
| ix. Terminated vested participants | 68,527 | 96,390 |
| x. Pensioners[2] | 2,884,221 | 3,476,457 |
| *xi. Total settled by annuity purchase/replicating portfolio (Sum Bviii to Bxiv)* | $ 3,088,130 | $ 3,886,902 |
| **xii. Total Solvency Liabilities (Bv+Bxi)** | $ 3,332,411 | $ 4,367,769 |
| **C. Solvency Position – (A)(iii) - (Bxii)** | 2,003,430 | 1,238,986 |
| **D. Solvency Ratio – (A)(iii)/(Bxii)** | 1.60 | 1.28 |

[1] For the purposes of the solvency actuarial valuation, the future regular Employee and Employer contributions in respect of participants of the ERIP/VDIP have been excluded. Excluding these contributions has no financial impact on the solvency position of the Plan.

[2] Including Beneficiaries and Survivors.

Assets would exceed liabilities had the plan terminated at the actuarial valuation date. The solvency ratio, as defined by the PBSA-85, is not less than 1.00 for the Plan at December 31, 2023. No restrictions are required, as described under the PBSA-85, on the lump sum portability transfers which may be made from the Plan until a subsequent actuarial valuation indicates that the ratio has changed.

# Average Solvency Ratio

In accordance with PBSA-85, the average solvency ratio (before adjustments for plan amendments) is the arithmetic average of the solvency ratios at December 31, 2023, December 31, 2022 (the prior valuation date) and December 31, 2021 (the prior second valuation date), adjusted to reflect the plan amendments effective January 1, 2022, April 1, 2022, January 1, 2023, April 1, 2023, January 1, 2024, and April 1, 2024 from the solvency liability at December 31, 2020.

The average solvency ratio (after adjustments for plan amendments) at December 31, 2023 is equal to the average solvency ratio (before adjustments for plan amendments) multiplied by the ratio of the solvency liability at December 31, 2023 excluding the plan amendments to the solvency liabilities at December 31, 2023 including the plan amendments.

## Development of Average Solvency Ratio

| | (in 000's) | | |
|---|---|---|---|
| | December 31, 2021[1] | December 31, 2022[1] | December 31, 2023 |
| **Adjusted Solvency Value of Assets** | | | |
| Solvency Assets | N/A | N/A | $ 5,335,841 |
| Total | N/A | N/A | $ 5,335,841 |
| **Adjusted Solvency Liability** | | | |
| Solvency Liability | N/A | N/A | $ 3,332,411 |
| Present Value of Plan amendments since January 1, 2021 | N/A | N/A | 197,929[2] |
| Total Solvency Liability excluding Plan amendments | N/A | N/A | $ 3,134,482 |
| **Adjusted Solvency Ratio (before adjustment for Plan amendments)** | 1.6012[3] | 1.6012[3] | 1.7023 |
| **Average Solvency Ratio** | | | |
| Average of three adjusted solvency ratios (before adjustment for Plan amendments) | 1.6349 | | |
| Average of three adjusted solvency ratios (after adjustment for Plan amendments) | 1.5378 | | |

1 No reports on actuarial valuations at December 31, 2021 and December 31, 2022 were filed.

2 Determined at 4.50%/4.50%/4.55% per annum.

3 In accordance with subsection 9(11) of the Pension Benefits Standards Regulations the solvency ratio without adjustments at the valuation date has been used as the adjusted solvency ratio for the prior valuation date and the prior second valuation date.

## Average Solvency Ratio to Determine Funding Requirements

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| **Adjusted Solvency Value of Assets** | | |
| Average solvency ratio | 1.5378 | 1.2749 |
| Solvency liability | $ 3,332,411 | $ 4,637,769 |
| Adjusted solvency value of assets | $ 5,124,559 | $ 5,568,496 |
| Solvency Liability | $ 3,332,411 | $ 4,637,769 |
| (Solvency Deficiency) / Solvency Excess | $ 1,792,148 | $ 1,200,727 |

# Section 3: Contribution requirements

The Plan is a jointly trusteed defined benefit pension plan for members of the Telecommunications Workers Union (TWU) United Steelworkers Local Union 1944 and certain employees of the Union and the Trustees.

Historically, the Employers have contributed a percentage of the Bargaining Unit gross earnings as prescribed by the Agreements then in effect. Based on these Agreements, the actual Employer contributions were 10.00% of earnings effective January 1, 2009.

The Plan participants contributed 2% of gross earnings to the Plan prior to April 1, 1994 in accordance with the Agreements. Effective April 1, 1994, the Plan participants have contributed at the increased rates based on their ages as follows:

| | |
|---|---|
| Under age 30 | – 3% of gross earnings |
| Age 30 or older but under 40 | – 4% of gross earnings |
| Age 40 or older but under 50 | – 5% of gross earnings |
| Age 50 or over | – 6% of gross earnings |

At present, the participants' required contributions are calculated to be on average approximately 4.91% of gross earnings.

Pursuant to the Collective Agreement ratified in 2011 the Company has agreed to make additional contributions to the Plan in respect of the participants who elected to leave under the ERIP/VDIP programs offered by the Company since January 1, 2005.

In accordance with the PBSA-85 and Regulations thereto, the Plan shall be funded in each plan year by contributions to provide for the following:

- the normal cost of accruing benefits;
- the funding of going concern unfunded liabilities, if any, over a period of not more than fifteen years from the review date on which it is first determined; and
- the funding of solvency deficiencies, if any, over a period of not more than five years from the review date on which it is first determined.

For purposes of the above funding test, subsection 9(5) of the Regulations allows the normal cost to be reduced by all or a portion of the lesser of:

- the going concern excess, and
- the amount by which the solvency assets exceed the solvency liabilities multiplied by 1.05.

If expected contributions are not sufficient to meet annual funding requirements, the actuary must provide the Trustees with options to remedy the situation.

# Minimum Funding Requirements

Using the Unit Credit Actuarial Cost Method, we have calculated the normal cost and special payments of the Plan, expressed as a percentage of covered earnings, for the next three Plan years. The results of these calculations, along with the estimated total employer and employee contributions, are set forth below:

| ($ in 000's) | in 2024 | in 2025 | in 2026 |
|---|---|---|---|
| 1. Normal Cost under Plan | 16.51% | 16.51% | 16.51% |
| 2. Required annual special payments towards unfunded actuarial liabilities | - | - | - |
| 3. Required annual special payments towards solvency deficiency | - | - | - |
| 4. Total annual funding requirement | 16.51% | 16.51% | 16.51% |
| 5. Estimated total employer and employee required contributions in accordance with the Agreements | 14.91% | 14.91% | 14.91% |
| 6. Estimated present value of current year's contributory earnings at the beginning of year (in '000's) | $ 123,533 | $ 127,877 | $ 132,353 |
| 7. Estimated shortfall of contributions (in '000's) ([5.-4.]x6.) | $ (1,977) | $ (2,046) | $ (2,117) |

The total expected contributions in 2024, 2025 and 2026 based on current contribution rates will be less than the annual funding requirements by approximately $6,140,000. However, as the Plan has a going concern excess of $1,846,928,000 and the Plan's solvency assets exceeds 105% of the solvency liabilities by $1,836,809,000, the normal cost may be reduced by the amount of the shortfall. Thus, the annual funding requirements under the PBSA-85 equals the total expected contributions.

The approximate actuarial present value of the provision for adverse deviations included in the Normal Cost above is as follows:

- Margin included in the Interest rate = $6.0M; and
- Margin included in the pre- and post-retirement mortality rates = $0.08M.

The approximate actuarial present value of the provision for expenses in the year following the actuarial valuation date, payable by the pension plan and included in the Normal Cost above is as follows:

- Provision for administrative expenses = $0.4M; and
- Provision for direct investment management expenses = $0.5M.

# Reconciliation of Current Benefit Accruals and Expense Costs

The cost of benefits accruing, including the allowance for expenses, expressed as a percentage of covered payroll has decreased from 22.14% in the previous valuation to 16.51% at December 31, 2023.

The following exhibit provides an approximate analysis of the major factors which have contributed to this change:

| | | |
|---|---|---|
| Normal Cost at December 31, 2020 for current benefit accruals and expenses | | 22.14% |
| **Plus** | increase resulting from change in valuation mortality assumption | 0.12% |
| | increase resulting from demographic changes | 1.30% |
| **Less** | decrease resulting from change in valuation interest rate assumption | (7.05%) |
| Normal Cost at December 31, 2023 for current benefit accruals and expenses | | 16.51% |

# Maximum Employer Contributions and Excess Surplus

Under the *Income Tax Act (Canada)*, the maximum amount that an Employer is permitted to contribute is equal to:

- The Employer's current service cost in respect of service accruing after the actuarial valuation date; plus
- The lump sum amount to eliminate any unfunded liability and/or solvency deficiency that exists at the actuarial valuation date; less
- Any excess surplus as required.

Historically, the Plan has targeted the provision of benefits upon retirement that are based on the participant's final 3-year average earnings immediately prior to retirement and a post-retirement increase in pensions each year equal to 25% of the increase in the CPI. The Trustees have approved earnings updates and increases to benefits in payment on an annual basis in line with that target when certain funding goals are reached.

In recent years, the financial position of the Plan has allowed the Trustees to consider providing post-retirement increases in pensions greater than 25% of the increase in CPI, while still maintaining minimum funding levels established in the Funding Policy. As a result, the Trustees have implemented a framework to guide decisions on providing levels of post-retirement increases in pensions higher than 25% of the increase in the CPI. The target level of post-retirement increases in pension will be determined by the accrued funded position of the Plan assuming the following benefit improvements are approved each year:

i) a benefit update in respect of active and disabled participants based on final 3-year average earnings; and

ii) an increase to benefits in payment equal to 25% of assumed CPI increases.

If the accrued funded ratio is less than 125%, the target level of post-retirement increases in pension will be 25% of the increase in the CPI. If the accrued funded ratio is greater than 125%, the target level will increase in 25% increments of coverage of the increase in CPI until the accrued funded ratio falls below 125%. For the actuarial valuation at December 31, 2023, the target level of post-retirement increases in pension is 100% of the assumed CPI increases.

Therefore, it is reasonable to consider the position of the plan assuming: i) benefits are based on final 3-year average earnings and ii) cost-of-living-adjustments of 2.05% (100% of assumed CPI) are granted to pensions in pay, when determining maximum employer contributions. We have conducted a valuation on such basis and the results of the valuation are provided below:

| | December 31, 2023 (in 000's) |
|---|---|
| **A. Actuarial Value of Assets** | |
| Actuarial value of assets | $ 5,339,820 |
| **B. Actuarial Liabilities** | |
| Actuarial liabilities for accrued benefits in respect of: | |
| Active participants | $ 463,582 |
| Disabled participants | 94,648 |
| Transferred to management participants | 80,140 |
| Terminated vested participants[1,2] | 243,262 |
| Pensioners[3] | 3,543,202 |
| Voluntary Contribution Accounts | 4,870 |
| Total actuarial liabilities | $ 4,429,704 |
| **C. Funded Position** | |
| Excess of actuarial value of assets over actuarial liabilities for accrued benefits (A.) - (B.) | $ 910,116 |
| **D. Funded Ratio** | |
| Ratio of actuarial value of assets to accrued actuarial liabilities (A. / B.) | 1.205 |

## Actuarial Methods – Liabilities

For the purpose of determining maximum employer contributions, the actuarial liabilities and the normal cost are developed using the Projected Unit Credit Cost Method. The actuarial liability was determined as the actuarial present value of non-retired participant's prospective benefits multiplied by the ratio of the participant's credited service at the actuarial valuation date to the participant's total potential credited service (the service prorate method).

The actuarial liabilities for retired participants were determined as the actuarial present value of their respective benefits.

The normal cost for non-retired participants was determined as the actuarial present value of their prospective benefits multiplied by the ratio of the participant's expected credited service in the following year to the participant's total potential credited service. The normal cost as a percentage of earnings will be stable over time if the demographic characteristics of the non-retired participants remain stable over time. All other things being equal, as the average age of non-retired participants increase (decrease) the normal cost as a percentage of earnings will increase (decrease).

1 Including Pending Terminations and paid out after actuarial valuation date.

2 Including non-vested Lives and untraced deferred vested Lives.

3 Including Beneficiaries and Survivors.

## Excess Surplus

The *Income Tax Act (Canada)* prescribes the maximum going concern surplus that may be retained by the Plan while Employer contributions continue. In general, this maximum is defined as 25% of the going concern actuarial liability.

There is no excess surplus at the actuarial valuation date and therefore Employer contributions are not affected by the prescribed maximum surplus limit.

## Maximum Employer Contributions

The maximum Employer contributions as a percentage of covered earnings and the estimated dollar amounts for the next four years following the actuarial valuation date is shown below:

| ($ in 000's) | in 2024 | in 2025 | in 2026 | in 2027 |
|---|---|---|---|---|
| 1. Normal Cost under the Plan | 28.18% | 27.23% | 26.30% | 25.42% |
| 2. Less: Participants' required contributions in accordance with the Agreements | (4.88%) | (4.88%) | (4.88%) | (4.88%) |
| 3. Employer's current service cost under the Plan | 23.30% | 22.35% | 21.42% | 20.54% |
| 4. Plus: Contributions to eliminate any unfunded liability or solvency deficit | 0.00% | 0.00% | 0.00% | 0.00% |
| 5. Less: Excess Surplus | (0.00%) | (0.00%) | (0.00%) | (0.00%) |
| 6. Employer maximum contribution | 23.30% | 22.35% | 21.42% | 20.54% |
| 7. Estimated present value of current year's contributory earnings at the beginning of year (in '000's) | $127,679 | $132,148 | $136,773 | $141,560 |
| 8. Estimated Maximum Employer Contributions (in '000's) (6. X 7.) | $ 29,749 | $ 29,535 | $ 29,297 | $ 29,076 |

For the years following 2023, the maximum Employer contributions may be different depending on the contributions made by the Employer since December 31, 2023.

# Timing of Contributions

To satisfy the requirements of the PBSA-85, the Employer and participant contributions must be remitted to the fund monthly and within 30 days of the end of the month to which they pertain.

# Section 4: Additional Disclosures

## Plausible Adverse Scenarios

There are numerous factors that could pose a risk to the Plan's ability to meet funding requirements. Outlined below are the major risk factors and the impact on the Plan's ability to meet the statutory funding requirements should these scenarios occur.

### Actuarial Valuation Interest Rate

As the majority of the Plan's assets are invested in fixed income instruments, long term interest rates have a significant impact on the Plan's asset values and the determination of the actuarial valuation interest rate. A significant decrease in interest rates should not affect the funded position significantly as the increase in the liability due to the drop in discount rates will be partially offset by a corresponding increase in assets, assuming the market value of all other assets (non-fixed income assets) remain unchanged. However, the decrease in interest rates will impact the Plan's ability to meet future funding requirements.

We have illustrated below the potential impact on the Plan should the actuarial valuation interest rate decrease by 1.00%.

### Deterioration of Asset Values

Equity market fluctuations can pose a significant risk to the Plan as a drop in the equity market could potentially result in a decrease in the Plan's funded status.

We have illustrated below the potential impact on the Plan should the equity-like assets[1] held by the Plan decrease in market value by 25%.

### Longevity Risk

There have been periodic updates to the mortality table to be used in pension actuarial valuations in the last ten years as members' life expectancy continues to improve. Longevity improvements can result in major increases in liabilities and are not offset by changes in assets, which may cause pension funding challenges.

We have illustrated below the impact from further mortality improvements in the Plan by using 95% of the 2014 CPM Private Sector Mortality Table adjusted to have the effect of members being three years younger than their true ages (a 3 year "setback"). This is equivalent to assuming that members on average will live close to three years longer than current assumptions.

[1] It was assumed that half of the real estate investments and infrastructure funds will react similarly to equities when there is a market crash.

### Impact on Going Concern Funded Position

| (in 000's) | December 31, 2023 (Base) | Interest rate risk | Deterioration of asset values | Longevity risk |
|---|---|---|---|---|
| Actuarial Value of Assets | $ 5,339,820 | $ 5,652,707 | $ 4,765,962 | $ 5,339,820 |
| Actuarial Liabilities | $ 3,492,892 | $ 3,911,980 | $ 3,492,892 | $ 3,730,399 |
| Funded Position | $ 1,846,928 | $ 1,740,727 | $ 1,273,070 | $ 1,609,421 |
| Funded Ratio | 1.53 | 1.44 | 1.36 | 1.43 |

### Impact on the ability to meet minimum required contributions

| (in 000's) | December 31, 2023 (Base) | Interest rate risk | Deterioration of asset values | Longevity risk |
|---|---|---|---|---|
| Normal cost | $ 20,404 | $ 25,934 | $ 20,404 | $ 21,332 |
| Special payments | $ - | $ - | $ - | $ - |
| Total funding requirement | $ 20,404 | $ 25,934 | $ 20,404 | $ 21,332 |
| Estimated contributions | $ 18,427 | $ 18,517 | $ 18,427 | $ 18,435 |
| Contribution excess/(shortfall) | $ (1,977) | $ (7,417) | $ (1,977) | $ (2,897) |

## Sensitivity of the Going Concern Actuarial Liabilities

Based on the current actuarial valuation assumptions, a 1.0% decrease in the actuarial valuation rate will increase the total accrued going concern actuarial liabilities of the Plan as at December 31, 2023 by 12.0% or $419 million.

## Sensitivity of the Normal Cost

Based on the current actuarial valuation assumptions, a 1.0% decrease in the actuarial valuation rate used in determining the value of liabilities for future service benefits will increase the present value (as at December 31, 2023) of the benefits expected to accrue in 2024 from 16.51% of earnings to 20.89% of earnings.

## Sensitivity of the Solvency Liabilities

Based on the current actuarial valuation assumptions, a 1.0% decrease in the actuarial valuation interest rates will increase the total solvency liabilities of the Plan as at December 31, 2023 by approximately 12.2% or $408 million.

## Solvency Incremental Cost

We have determined the 3-year solvency incremental cost as at December 31, 2023 for the Plan to be $47,185,000.

The solvency incremental cost reflects the expected aggregate change in the Plan's liabilities from December 31, 2023 to December 31, 2026 (including decrements, expected benefit accruals and benefit improvements) on a solvency basis, adjusted upwards with the expected benefit payments in 2024, 2025 and 2026. The solvency incremental cost is meant to measure a three-year cost of accruals and benefit payments on a Plan termination basis (independent of the expected return on Plan assets) and is not an appropriate measure of the contributions that would be required to fund the Plan.

# Appendix A: Assets of the Plan

## Growth of Pension Fund Assets

The assets of the Plan are held under a trust agreement with CIBC Mellon Global Securities Services Company. The value of the assets shown in this report are derived from the audited reports prepared by Smythe LLP.

| | (in 000's) | | |
|---|---|---|---|
| | **2023** | **2022** | **2021** |
| Market value at beginning of Plan year | $ 4,832,891 | $ 5,627,992 | $ 5,609,129 |
| **PLUS** | | | |
| Contributions | | | |
| • Employer | $ 17,204 | $ 18,933 | $ 21,386 |
| • Employee | | | |
|     • Required | 8,513 | 9,077 | 9,649 |
|     • Voluntary | 356 | 440 | 480 |
| Investment income | 141,262 | 49,936 | 55,284 |
| Change in market value of investment | 581,360 | (639,637) | 165,658 |
| Subtotal | $ 748,695 | $ (561,251) | $ 252,457 |
| **LESS** | | | |
| Pension payments | $ 227,069 | $ 221,242 | $ 218,349 |
| Termination payments | 5,091 | 3,795 | 3,612 |
| Death benefit payments | 1,771 | 345 | 3,016 |
| Return of employee Voluntary Contributions | 536 | 236 | 186 |
| Expenses • investment (directly charged) | 3,874 | 4,997 | 5,562 |
| • non-investment | 3,425 | 3,235 | 2,869 |
| Subtotal | $ 241,766 | $ 233,850 | $ 233,594 |
| Market value at end of Plan year | $ 5,339,820 | $ 4,832,891 | $ 5,627,992 |

## Voluntary Contribution Account

The Voluntary Contribution Account represents additional voluntary contributions made to the Plan. Upon retirement, a participant who has a Voluntary Contribution Account must either receive a refund of the voluntary contributions with interest or use this balance to purchase an increase in their pension payments. In line with the Plan's recent experience, we have assumed 100% of participants will purchase additional pension payments and therefore have continued to include the balances in the table above.

The Voluntary Contribution Account balance as of the Plan year end is as follows:

| | (in 000's) | | | |
|---|---|---|---|---|
| | **2023** | **2022** | **2021** | **2020** |
| Market value at end of Plan year | $ 4,870 | $ 5,720 | $ 5,568 | $ 5,230 |

# Actuarial Value of Assets

The actuarial value of assets for the purposes of this actuarial valuation is determined to be $5,339,820,000, which is equal to the market value of assets. No additional adjustments were required.

# Pension Fund Investment Return

The Fund has earned the following approximate rates of return, net of all expenses[1], in the years 2006 through 2023. Calculations were based on the audited financial statements.

| Year | Pension Fund Net Investment Return on Market Value |
|---|---|
| 2006 | 6.3% |
| 2007 | 3.5% |
| 2008 | -0.4% |
| 2009 | 3.5% |
| 2010 | 15.8% |
| 2011 | 19.8% |
| 2012 | 5.0% |
| 2013 | -8.4% |
| 2014 | 19.8% |
| 2015 | 6.3% |
| 2016 | 3.7% |
| 2017 | 10.5% |
| 2018 | 2.4% |
| 2019 | 16.7% |
| 2020 | 12.5% |
| 2021 | 3.2% |
| 2022 | -11.0% |
| 2023 | 15.1% |
| 3-year average (per annum) | 1.9% |
| Geometric Average Over Period Shown | 6.6% |

The rates of return were derived on the assumption that new money was received at a constant rate over each year.

[1] For years prior to 2018, investment rates of return are net of investment and custodial fees only.

# Asset Distribution

The following table shows the approximate asset class allocation of investments of the Fund, derived from the custodial reports, based on market value as at December 31, 2023 with comparative figures at December 31, 2020:

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| **Duration Matching Assets:** | | |
| • Bonds | 8.7% | 21.0% |
| • Mortgages and Debenture Funds[1] | 10.5% | 11.9% |
| • Hedge Funds[2] | 2.6% | 2.0% |
| • Direct Lending[2] | 6.3% | 4.8% |
| • Short-Term Bond[3] | 9.1% | 11.8% |
| • Dividend Equities[2] | 0.1% | 2.9% |
| • Cash[2] | 4.1% | 5.7% |
| Sub-total | 41.4% | 60.1% |
| **Other Assets:** | | |
| • Real Estate | 29.7% | 21.8% |
| • Public Market Equity | 0.0% | 0.0% |
| • Private Market Equity | 9.9% | 5.4% |
| • Infrastructure Equity | 16.9% | 12.6% |
| • Cash, Short Term Notes and Other | 2.1% | 0.1% |
| Sub-total | 58.6% | 39.9% |
| Total | 100.0% | 100.0% |

The following table shows the approximate allocation of investments of the Fund that are non-Canadian dollar denominated and unhedged as at December 31, 2023:

| | Asset Allocation |
|---|---|
| • Short-Term Bond | 0.5% |
| • Private Market Equity | 9.9% |
| • Infrastructure Equity | 2.9% |

1 At December 31, 2023, 5.3% are held in the Plan's bond overlay structure; at December 31, 2020 it was 5.6%.

2 These investments are held in the Plan's bond overlay structure.

3 At December 31, 2023, 8.1% are held in the Plan's bond overlay structure; at December 31, 2020 it was 7.6%.

# Target Asset Mix and Asset Mix Ranges

The target asset mix and asset mix ranges as permitted by the Plan's investment policy as at December 31, 2023 is as follows:

| | Target Asset Allocation | Asset Allocation Range |
|---|---|---|
| • Cash & Short Term | 0.0% | 0.0% - 5.0% |
| • Special Bond Portfolio | 22.5% | 15.0% - 60.0% |
| • Mortgages outside of Bond Overlay Structure | 7.5% | 0.0% - 12.0% |
| • Private Equity | 5.0% | 0.0% - 7.5% |
| • Infrastructure Equity | 20.0% | 5.0% - 25.0% |
| • Real Estate | 20.0% | 5.0% - 25.0% |
| • Bond Overlay Structure, Including Mortgages, Hedge Funds, Dividend Equity, Short-Term Bonds and Direct Lending | 25.0% | 10.0% - 30.0% |

# Appendix B: Actuarial basis – going concern

## Introduction

Pension plans are long term financial commitments, and the cost of these commitments (or liabilities) must be estimated to confirm that the funds being set aside would be sufficient to meet them.

To estimate the cost of the future commitments, assumptions must be made about future events and conditions that will affect the cost. These assumptions may be categorized as either economic or demographic assumptions. Economic assumptions pertain to factors such as the rate of investment return, inflation and earnings increases. Demographic assumptions pertain to events affecting the Plan participants, such as terminations, mortality, and retirement and other assumptions which pertain to conditions that are more Plan specific, such as marital status and the percentage of Plan participants selecting survivors' benefits.

The actuarial basis of calculation for this actuarial valuation is set out below. The actuarial basis includes the economic and demographic assumptions used to value the liabilities. It also includes the actuarial methods used to determine the actuarial value of assets and the allocation of actuarial liabilities to past and future service for determination of the funded position and adequacy of contributions (as provided for in the Collective Agreement) to fund the Plan benefits.

Future events will show the actual cost to be higher or lower than the actuarial estimate since any difference between the Plan's actual experience and the actuarial assumptions will emerge as experience gains or losses in future actuarial valuations. In the long run, the cost of the Plan will ultimately be determined by the benefits provided and by the Plan's actual experience, not by the actuarial basis chosen from time to time by actuaries to estimate this cost.

As in previous actuarial reviews, we have considered the appropriateness of the actuarial assumptions and methods which were used in the previous actuarial valuation in the context of a long-term horizon. Since changes in the actuarial basis affect the funded position as reported, major changes are not made frequently or without good reason. We expect to modify the actuarial basis from time to time in response to changing circumstances and experience.

Any changes in assumptions, methods, or basis from those employed in the previous actuarial valuation are noted in this Appendix B.

# Summary of Actuarial Basis

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| **Economic Assumption** | | |
| Rate of Inflation | 2.05% per annum | 2.00% per annum |
| Interest rate net of expenses | 4.50% per annum | 3.00% per annum |
| Non-investment expenses | Included in the interest rate | Same |
| Earnings increases | | |
| • For actuarial valuation | 2023 annualized earnings increased by 3.5% per annum (assumed) | 2020 annualized earnings increased by 3% per annum (assumed) |
| • For updating | • 2024 earnings = 2023 earnings increased by 3.5%<br>• 2025 earnings = 2024 earnings increased by 3.5%<br>• 2026 earnings = 2025 earnings increased by 3.5% | • 2021 earnings = 2020 earnings increased by 3%<br>• 2022 earnings = 2021 earnings increased by 3%<br>• 2023 earnings = 2022 earnings increased by 3% |
| Variable pay | 5% per annum | Same |
| Interest on employee contributions | Same as interest rate | Same |
| **Demographic Assumptions** | | |
| Mortality rates | 95% of 2014 Canadian Pensioners' Private Sector Mortality Table (CPM2014Priv) (Table 1) with generational mortality using improvement scale MI-2017 | 2014 Canadian Pensioners' Private Sector Mortality Table (CPM2014Priv) (Table 1) with generational mortality using improvement scale MI-2017 |
| Termination rates | None assumed | Same |
| Retirement rates for active participants | Age related (Table 2) | Same |
| Retirement age for terminated vested and transferred to management participants | Earliest age at which an unreduced retirement benefit may be granted | Same |
| Disability rates | Age related (Table 3) | Same |
| Disabled Retirement Age | | |
| • Date of Disability prior to September 1, 1990 | Age 65 | Same |
| • Date of Disability after September 1, 1990 | Age of attaining 25 years of service but not prior to age 60 or later than age 65 | Same |

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| **Other Assumptions** | | |
| Marital Status | | |
| • non-pensioners | 100% married | Same |
| • pensioners | Actual | Same |
| Member/Spouse Age Difference | | |
| • non-pensioners | Males 3 years older | Same |
| • pensioners | Males 3 years older if actual DOB not available | Same |
| New entrants | None assumed | Same |
| Voluntary Contribution Account | 100% purchase additional benefit payments under the Plan upon retirement | Same |
| Benefits subject to consent | Included | Same |
| **Actuarial cost method** | Accrued Benefit | Aggregate Accrued Benefit |
| **Asset valuation method** | Market value[1] | Same |

[1] Plus, where applicable, the additional regular Employer and Employee contributions receivable in respect of participants of the ERIP/VDIP programs.

## Table 1 – Sample Mortality Rates

| Age | Rates per 1000 Participants | | | |
|---|---|---|---|---|
| | CPM Private Sector Table | | 95% CPM Private Sector Table | |
| | Base Table – December 31, 2020 | | Base Table – December 31, 2023 | |
| | Male | Female | Male | Female |
| 20 | 0.93 | 0.20 | 0.88 | 0.19 |
| 25 | 1.23 | 0.27 | 1.17 | 0.26 |
| 30 | 1.36 | 0.33 | 1.29 | 0.31 |
| 35 | 1.36 | 0.46 | 1.29 | 0.44 |
| 40 | 1.54 | 0.67 | 1.46 | 0.64 |
| 45 | 2.16 | 0.95 | 2.05 | 0.90 |
| 50 | 3.01 | 1.42 | 2.86 | 1.35 |
| 55 | 4.53 | 2.28 | 4.30 | 2.17 |
| 60 | 7.27 | 3.85 | 6.91 | 3.66 |
| 65 | 10.24 | 6.18 | 9.73 | 5.87 |
| 70 | 14.88 | 9.74 | 14.14 | 9.25 |
| 75 | 25.00 | 16.15 | 23.75 | 15.34 |
| 80 | 45.07 | 30.00 | 42.82 | 28.50 |

## Table 2 – Retirement Rates

| Age | Rates per 1000 Participants | |
|---|---|---|
| | Male | Female |
| 54 or under | 0.0 | 0.0 |
| 55 | 100.0 | 100.0 |
| 56 | 200.0 | 150.0 |
| 57 | 200.0 | 150.0 |
| 58 | 100.0 | 120.0 |
| 59 | 100.0 | 120.0 |
| 60 | 215.6 | 215.6 |
| 61 | 266.8 | 266.8 |
| 62 | 219.2 | 219.2 |
| 63 | 272.8 | 272.8 |
| 64 | 327.6 | 327.6 |
| 65 | 1,000.0 | 1,000.0 |

## Table 3 – Sample Disability Rates

| Age | Rates per 1000 Participants | |
|---|---|---|
| | Male | Female |
| 34 or under | 0.0 | 0.0 |
| 35 | 1.8 | 3.6 |
| 40 | 3.6 | 7.2 |
| 45 | 3.6 | 7.2 |
| 50 | 5.4 | 10.8 |
| 55 | 12.6 | 25.2 |
| 60 or over | 0.0 | 0.0 |

# Rationale for Actuarial Assumptions

## Rate of Inflation

The assumption reflects an estimate of future rates of inflation considering economic and financial market conditions at the actuarial valuation date.

For purposes of estimating the cost of increases to benefits in payment at April 1, 2025, 2026 and 2027, it was assumed that the increase each year will be equal to 2.05% (i.e. 100% of the 2.05% assumed rate of inflation).

## Interest Rate

The Trustees have adopted an investment strategy which consists primarily of investing the assets in fixed income instruments. The strategy serves to provide greater certainty that the benefits will be fully funded by the assets on hand plus the investment earnings on such assets and future contributions. Securities have been selected with regard to the expected contribution and benefit cashflows to ensure that the Plan's benefits can be provided with a high degree of certainty.

As long as the above-mentioned investment strategy remains in place, the actuarial valuation interest rate assumption, to be used in determining the accrued liabilities at the actuarial valuation date, will be determined by reference to the expected yield on the assets held in respect of these liabilities at the same date.

To determine the expected yield on the assets, the expected return for each asset class is multiplied by the percentage that each asset class represents of the total fund. The 4.50% per annum actuarial valuation interest rate was determined as follows:

a) the assumed rate of inflation of 2.05% per annum, plus
b) the expected long-term real return of 4.40% per annum, which is equal to the expected long-term real return as at December 31, 2023 on the fund's assets adjusted to the Plan's target asset mix, less
c) an allowance for directly paid investment management fees of 0.09% per annum, less
d) an allowance for non-investment fees of 0.07% per annum, less
e) a margin for adverse deviations of 1.79% per annum comprised of 1.29% per annum for default risk, mismatching, equity risk, other interest rate risks and 0.50% per annum for other non-investment assumptions.

The margin set out in e) above is intended to include the default risk margin and a provision for the potential that the non-fixed income assets will not perform as well as anticipated.

## Plan Expenses – investment and non-investment

The interest rate is net of all expenses, as described above. The assumed expense level is based on the last several years of experience of the Plan as well as on future expectations. The allowance for investment expenses has decreased slightly from the expense assumption used in the December 31, 2020 actuarial valuation. The allowance for non-investment expenses is unchanged.

## Earnings Increases

We have increased each participant's 2023 annualized covered earnings by 3.5% per annum to estimate 2024 and future earnings for purposes of projecting future Employee and Employer contributions to the Plan and calculating the actuarial liabilities for benefits to be accrued after the actuarial valuation date. The earnings increase assumption has increased from 3.00% per annum used in the December 31, 2020 actuarial valuation to 3.50% per annum to reflect expectations for future earnings changes.

Pursuant to the Collective Agreement ratified in 2011, variable pay was offered to eligible participants as a portion of their earnings. In this actuarial valuation, all active and disabled participants are assumed to be eligible for variable pay at 5% of regular earnings per annum from the actuarial valuation date, the same assumptions as in the December 31, 2020 actuarial valuation.

## Mortality

For the valuation at December 31, 2020, the 2014 Canadian Pensioners' Private Sector Mortality Table (CPM private table) with generational improvement scale CPM-B, adjusted for size and industry factors[1], was considered to be a best estimate of the mortality of the Plan's membership. However, the mortality rates used in that valuation were taken from the CPM private table without adjustments, combined with generational projection scale MI-2017. The adjustments for size and industry factors were removed and improvement scale CPM-B replaced with improvement scale MI-2017 in order to include a margin for adverse deviations in regards to mortality improvements and longevity risk.

In order to ensure that the adjusted CPM private table combined with the CPM-B improvement scale continues to provide a reasonable best estimate assumption for the Plan we have conducted an analysis of actual to expected pre- and post-retirement mortality experience for the period from January 1, 2013 to December 31, 2022. The results of our analysis are shown below:

### (A) Pensioners

| Calendar Year(s) | 2008 - 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2018-2022 | 2013-2022 |
|---|---|---|---|---|---|---|---|---|
| Total actual deaths | 1,540.0 | 173.0 | 194.0 | 232.0 | 229.0 | 246.0 | 1,074.0 | 1,941.0 |
| Expected deaths based on | | | | | | | | |
| • CPM private table with generational projection scale CPM-B, adjusted by size and industry factors | 1,513.0 | 198.9 | 210.4 | 219.4 | 227.6 | 234.5 | 1,090.8 | 1,967.8 |
| Mortality ratio (actual/expected) | 1.02 | 0.87 | 0.92 | 1.06 | 1.01 | 1.05 | 0.98 | 0.99 |

[1] Size factor adjustments of 1.020975 for male participants and 0.978555 for female participants and industry factor adjustment of 1.07.

## (B) Active Participants

| Calendar Year(s) | 2008 - 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2018-2022 | 2013-2022 |
|---|---|---|---|---|---|---|---|---|
| Total deaths | 48.0 | 2.0 | 8.0 | 1.0 | 5.0 | 2.0 | 18.0 | 53.0 |
| Expected deaths based on | | | | | | | | |
| • CPM private table with generational projection scale CPM-B, adjusted by size and industry factors | 108.6 | 8.0 | 6.9 | 6.4 | 6.2 | 5.8 | 33.3 | 111.7 |
| Mortality ratio | 0.44 | 0.25 | 1.16 | 0.16 | 0.81 | 0.34 | 0.54 | 0.47 |

We believe that it is appropriate to base our conclusions on the actual and expected deaths for the ten-year period from January 1, 2013 to December 31, 2022.

Based on the findings above, the CPM private table with generational improvement scale CPM-B, adjusted for size and industry factors, appears to provide a good representation of the mortality experienced by the Plan membership, however, considering the Plan's mortality liability experience is essentially zero over the last six years the mortality table used in the previous actuarial valuation (CPM private table with generational improvement scale MI-2017) is considered to be the best estimate of future mortality experience. However, we have chosen to include a margin for adverse deviations in the mortality assumption by scaling the mortality rates from the December 31, 2020 valuation by 95%. Specifically, we have used the CPM private table scaled by 0.95 combined with improvement scale MI-2017 for the actuarial valuation at December 31, 2023.

## Termination

No allowance has been made for withdrawals prior to retirement as including such assumption would not have a material impact on the actuarial valuation results.

## Retirement from active participant status

We have continued to utilize the same rates of retirement that were used for the December 31, 2020 actuarial valuation as the Plan's experience over recent years cannot conclusively suggest that the assumption is inappropriate for the Plan and the current rates of retirement are consistent with an assessment of future expectations. All participants are assumed to commence their pension at the retirement date.

## Retirement from termination vested and transferred to management status

For purposes of valuing benefit liabilities with respect to former participants (terminated vested), it was assumed that the former participants would retire at the earliest age at which an unreduced retirement benefit may be granted based on their respective dates of termination.

For purposes of valuing benefit liabilities with respect to transferred to management participants, it was assumed that their eligibility service for unreduced retirement benefits will continue to grow until retirement and they would retire at the earliest age at which an unreduced retirement benefit may be granted.

## Disability

The rates of disability are based on the Plan’s experience and an assessment of future expectations. No recovery rate is assumed. The same rates of disability were used for the December 31, 2020 actuarial valuation.

## Marital Status and Spouse’s Age

For purposes of calculating the actuarial liability for the pre-retirement spouse’s benefit, we have continued to assume that 100% of participants and former participants were married at date of death and on average a female spouse is three years younger than a male spouse.

For purposes of calculating reserves for benefits payable to retired participants who have elected Joint and Last Survivor options, if the date of birth of a spouse is not available, it was assumed a female spouse is three years younger than a male spouse.

## Maximum Pensions

For purposes of our current actuarial valuation and cost calculations, we have ignored the maximum pension limitations contained in the Income Tax Act as these have no material impact on the results.

## New Entrants

As with our previous actuarial valuations, we have continued to make no advance allowance for replacement of participants who retire, die or become disabled in the future.

## Voluntary Contribution Account

We have assumed that all participants who have a Voluntary Contribution Account balance at the time of their retirement will choose to purchase additional benefits under the Plan. This assumption is consistent with the Plan’s recent experience.

## Benefits subject to consent

Upon receipt of consent from the Board of Trustees, participants are eligible to receive pension benefits inclusive of the early retirement subsidies upon retirement from the Plan.

For purposes of valuing benefit liabilities, it was assumed that consent is provided and therefore the cost of providing such early retirement subsidies has been included in the actuarial liabilities.

# Going Concern Actuarial Methods

## Assets

As with our last actuarial valuation, the actuarial value of assets for this actuarial valuation was set equal to the market value of assets adjusted for benefits and expenses due and unpaid and contributions in transit.

## Liabilities

The going concern actuarial valuation of the liabilities is conducted using the Accrued Benefit Actuarial Cost Method with supplemental funding of any unfunded actuarial liability for accrued benefits. The results of our calculations are shown in Section 1. Going concern liabilities calculated using both the Aggregate Actuarial Cost Method and Accrued Benefit Actuarial Cost Method were presented in the previous valuation report.

The accrued actuarial liabilities on the Accrued Benefit Actuarial Cost Method are determined based on service and benefit credits accrued up to the actuarial valuation date and are equal to the sum of:

a) the actuarial present value of benefit credits accrued to non-pensioners; and

b) the actuarial present value of benefits payable to pensioners.

For purposes of determining the required minimum funding under the PBSA-85, the actuarial liabilities for benefits to be earned in the year following the actuarial valuation date are calculated based on the Unit Credit Cost Method, expressed as a percentage of covered earnings, and the assumptions outlined in this Appendix B. It has been assumed that the Unit Credit Cost, expressed as a percentage of covered earnings, for the years 2025 and 2026 will be approximately equal to the cost calculated for 2024. This implicitly assumes that new entrants will replace active participants who leave because of death, disability, or retirement and that the demographic profile of the membership will be preserved.

## Benefits Valued

The benefits valued were those in effect at the actuarial valuation date as described in Appendix D.

For purposes of disability benefit, we assumed that all future disabled participants will receive long term disability benefit payments under the Company disability plan and will accrue benefit credits under the Plan until retirement. The retirement age of 65 is applied for the participants who became disabled prior to September 1, 1990. For all other disabled participants, the retirement age was set to the age when they would attain 25 years of service, but not prior to age 60 or later than age 65.

## Contributions

This is a jointly trusteed defined benefit pension plan.

For the purpose of analysing the adequacy of current contribution rates, we have assumed in our calculations that future contributions would be paid by Employees and Employers in accordance with the terms of the Agreements entered into between the parties concerned. As of January 1, 2024 the required rates of contribution for Employees and Employers are as shown in Appendix D. Contributions were assumed to be received monthly.

# Appendix C: Actuarial basis – solvency

## Introduction

As required by the PBSA-85, a solvency actuarial valuation was performed on the Plan as at December 31, 2023 in accordance with the standards prescribed by the PBSA-85. The following actuarial assumptions and methods were used in performing the solvency actuarial valuation.

## Summary of Actuarial Basis

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| **Economic Assumptions** | | |
| Interest Rate | | |
| • Lump sum transfers | 4.50% per annum for 10 years, then 4.50% per annum | 1.40% per annum for 10 years, then 2.90% per annum |
| • Replicating Portfolio | Not applicable | 2.05% per annum |
| • Annuity Purchase | 4.55% per annum | 2.50% per annum |
| Allowance for expenses on windup: | | |
| • Replicating Portfolio | Not applicable | $2,374,000 (assumed to be the sum of a fixed cost of $100,000 to set up replicating portfolio plus $400 per non-retired participant) |
| • Annuity Purchase | $3,979,000 (assumed to be the sum of a fixed cost of $1,000,000 plus $400 per non-retired participant plus $100 per retired participant) | $4,277,000 (assumed to be the sum of a fixed cost of $1,000,000 plus $400 per non-retired participant plus $100 per retired participant) |
| Earnings increases | Nil | Same |
| **Demographic Assumptions** | | |
| Mortality | | |
| • Lump sum transfers/Annuity Purchase | 2014 Canadian Pensioners' Combined Mortality Table with generational mortality using improvement scale CPM-B | Same |
| • Replicating Portfolio | Not applicable | 2014 Canadian Pensioners' Private Sector Mortality Table (CPM2014Priv) (Table 1) with generational mortality using improvement scale MI-2017 |

| | December 31, 2023 | December 31, 2020 |
|---|---|---|
| Termination | Immediate | Same |
| Retirement age | | |
| • active participants who elect ERIP | Date of severance | Same |
| • other active participants | Age 65 | Same |
| • disabled participants | Age 65 | Same |
| • terminated vested and transferred to management participants | Age 65 | Same |
| Disability | None assumed | Same |
| **Other Assumptions** | | |
| Settlement Method | | |
| • Lump sum transfers | Only non-retired participants not eligible to retire immediately | Same |
| • Replicating Portfolio/Annuity Purchase | Retired participants and beneficiaries of retired participants and 100% of non-retired participants eligible to retire immediately | Same |
| Voluntary Contribution Account | 100% purchase additional benefit payments under the Plan upon retirement | Same |
| Benefits subject to consent | Not included | Same |
| **Actuarial cost method** | Accrued benefit | Same |
| **Asset valuation method** | Market value | Same |

## Solvency Liability Scenario

The solvency actuarial valuation is based on a solvency liability scenario, involving the participants' accrued pensions and associated rights, based on applicable statutory windup requirements, Plan provisions, credited service, historical earnings, and accumulated contributions up to the actuarial valuation date.

At December 31, 2023 we have valued the scenario in which a single premium annuity purchase is completed for those participants who have retired and those who are eligible to retire. For the valuation at December 31, 2020, it was assumed that the Plan assets would be invested in a replicating portfolio with similar cash flow and duration characteristics to the accrued benefit cash flows, and the Plan would continue to provide monthly benefits to these participants. In this valuation and the previous valuation, we have assumed that all other member benefits are discharged through lump sum transfers.

# Rationale for Actuarial Assumptions

## Annuity Purchases

It was assumed that, in the event of Plan windup, annuities would be purchased in respect of retired participants and beneficiaries of retired participants and all active and inactive participants who are eligible for immediate retirement at the actuarial valuation date.

The cost of any such annuities was estimated based on economic conditions in effect at the actuarial valuation date. An interest rate of 4.55% per annum and mortality rates from the 2014 CPM Mortality Table (Combined) with generational mortality projection using mortality projection Scale CPM-B (sex distinct rates) were used to estimate the cost of these annuities. These rates were established in accordance with the Canadian Institute of Actuaries ("CIA") Standards of Practice - General Standards and are based on the research conducted by the CIA Committee on Pension Plan Financial Reporting (Education Note of January 2024). The guidance suggests that the annuity purchase rate depends on the duration of the liabilities. The duration of the liabilities to be settled via a non-indexed annuity is 10.29.

## Lump Sum Transfer Values

Where annuities were not assumed to be purchased, or it was assumed that the commuted value payable in the event of a Plan windup would be the lump sum transfer amount payable on an individual termination of employment, in lieu of a deferred pension payable from the Plan.

Lump sum transfer amounts were determined in accordance with the CIA Standards of Practice for Pension Commuted Values (i.e., Section 3500 of the CIA Standards of Practice - Practice-Specific Standards for Pension Plans) as applicable to terminations occurring in December 2024 resulting in discount rates of 4.50% per annum for 10 years and 4.50% per annum thereafter and mortality rates from the 2014 CPM Mortality Table (Combined) with generational mortality projection using mortality projection Scale CPM-B (sex distinct rates).

## Earnings Increases

No allowance was made for future increases in earnings.

## Retirement Age

Depending on the participants' status at date of actuarial valuation, we have employed the following retirement age assumptions to calculate benefits (except for active participants who elect ERIP, where members retire immediately, actuarial equivalence will be calculated from the ages below):

- for active participants who elect ERIP – date of severance
- for other active participants – age 65
- for disabled participants – age 65
- terminated vested and transferred to management participants – age 65

## Disability

No provision was made for disability after the actuarial valuation date.

## Termination

It was assumed that all participants terminate at the actuarial valuation date, with full vesting of accrued benefits.

## Settlement Method

We have assumed that 100% of active and inactive participants who are eligible for immediate retirement at the actuarial valuation date would have annuities purchased on their behalf.

## Voluntary Contribution Account

We have assumed that all participants who have a Voluntary Contribution Account balance at the time of their retirement will choose to purchase additional benefits under the Plan. This assumption is consistent with the Plan's recent experience.

## Benefits subject to consent

Upon receipt of consent from the Board of Trustees, participants are eligible to receive pension benefits inclusive of the early retirement subsidies upon retirement from the Plan. For purposes of valuing benefit liabilities, it was assumed that consent is not provided and therefore the cost of providing such early retirement subsidies has been excluded from the actuarial liabilities.

# Solvency Actuarial Valuation Actuarial Methods

## Assets

Assets deemed to be available for purposes of the solvency actuarial valuation are equal to:

i) the market value of assets in the Fund, adjusted for any receivables or payables; plus
ii) the present value of admissible special payments as defined under the Regulation to the PBSA-85, discounted using the assumed interest rates of the solvency actuarial basis; less
iii) windup expenses.

## Liabilities

The Accrued Benefit Actuarial Cost Method was used to determine the solvency liabilities. Under this method, for each Plan participant, the accrued actuarial liabilities are determined as the present value of all benefits accrued to the actuarial valuation date.

Total solvency liabilities are compared with the assets deemed to be available to cover such liabilities to determine the solvency of the Plan at the actuarial valuation date.

## Benefits Valued

The benefits valued were based on the Plan provisions applicable on Plan termination in effect at date of actuarial valuation, including the benefit improvements granted effective January 1, 2024 and April 1, 2024. On Plan termination, consent is not granted to members for the subsidized early retirement provisions. Actuarial equivalent reductions are employed.

No allowance was made for subsequent benefit increases granted or improvements implemented, if any, under the Plan after the actuarial valuation date (except for the pensioner increase provided April 1, 2024).

# Appendix D: Summary of Plan provisions including improvements and amendments up to January 1, 2024

***The following section provides a <u>summary</u> of Plan provisions only. For a complete listing of the provisions and terms, the Plan document should be referenced.***

## I. Effective Date and Eligibility

The Effective Date of the Plan was January 1, 1973. Prior to January 1, 1975, the Plan was called the Federation of Telephone Workers of British Columbia Supplemental Retirement Plan. Effective December 31, 1978, O.K. Tel Plan participants became Participants in this Plan.

All employees shall become Participants in accordance with the collective agreement.

## II. Definitions

### 1. Annualized Earnings

Beginning with 2008, a Participant's Annualized Earnings for the calendar year is the amount equal to the Participant's Earnings divided by the Participant's Credited Service accumulated during the calendar year.

### 2. Average Annual Earnings

Beginning with 2009, a Participant's Average Annual Earnings for the calendar year is the amount, on January 1, of that calendar year, that is the lessor of:

(a) The average of the Participant's Earnings over the three calendar years preceding that January 1; and

(b) The product of 260.89 multiplied by the average of the Participant's Daily Rate on December 31 for each of the three years immediately preceding that January 1.

### 3. Average Annualized Earnings

Beginning with 2009, a Participant's Average Annualized Earnings is the amount, on each January 1, that is the lessor of:

(a) The average of the Participant's Annualized Earnings over the three calendar years preceding that January 1; and

(b) The product of 260.89 multiplied by the average of the Participant's Daily Rate as of December 31 for each of the three years immediately preceding that January 1.

### 4. Disability Pension Commencement Date

#### Prior to September 1, 1990

A Participant who becomes totally and permanently disabled as hereinafter defined may retire on a Disability Pension Commencement Date which may be the first day of any month prior to his sixty-fifth (65th) birthday and subsequent to the date the Trustees determine such Participant to be totally and permanently disabled.

**Subsequent to September 1, 1990**

A Participant who becomes totally and permanently disabled as hereinafter defined may retire on a Disability Pension Commencement Date which may be the first day of any month prior to his sixtieth (60th) birthday or his attainment of twenty-five (25) years of Service, whichever is the later, provided such date is prior to his sixty-fifth (65th) birthday and subsequent to the date the Trustees determine such Participant to be totally and permanently disabled.

## 5. Early Pension Commencement Date

i) A Participant who has attained the age of fifty-five (55) years or who has attained the age of fifty (50) years and who has attained thirty (30) years of Pension Eligibility Service or more may retire on the benefit described in paragraph III(2)(ii) of this Appendix D.

ii) On written application to and with the consent of the Trustees a Participant who has either attained the age of sixty (60) years or who has both attained the age of fifty-five (55) years and has twenty-five (25) years of Pension Eligibility Service or more may retire on the benefit described in paragraph III(2)(i) of this Appendix D.

iii) On written application to and with the consent of the Trustees a Participant who has attained the age of fifty (50) years and who has attained thirty (30) years of Pension Eligibility Service or more may retire on the benefit described in paragraph III(2)(iii) of this Appendix D.

iv) On written application to and with the consent of the Trustees a Participant who has attained the age of fifty-five (55) years but who has not attained the age of sixty (60) years has not attained twenty-five (25) years of Pension Eligibility Service may retire on the benefit described in paragraph III(2)(iv) of this Appendix D.

Upon satisfying any one of the above-described conditions, a Participant may retire as of the first day of any calendar month following the date his service with the Employer ceases.

The granting of consent by the Trustees shall be on a non-discriminatory basis. However, if the Trustees receive or anticipate the receipt of a series of applications for consent for early retirement under this Appendix D which result from or are based on an ERIP the Trustees shall consider the financial and actuarial implications of granting or continuing to grant consent for early retirement and determine whether or not such applications for early retirement should be granted.

## 6. Normal Pension Commencement Date (Pensionable Age)

The Normal Pension Commencement Date of a Participant shall be the first day of any month coinciding with or following the date upon which the Participant has attained his sixty-fifth (65th) birthday, but not later than December 1 of the year in which the Participant attains age 71.

## 7. Pension Eligibility Service

Pension Eligibility Service is equal to the full calendar months of Covered Employment with an Employer, expressed in calendar years and a fraction of a calendar year.

## 8. Voluntary Contribution Account

The Voluntary Contribution Account is equal to the total of a Participant's Voluntary Contributions plus interest on those contributions. Upon retirement, a Participant must either use their Voluntary Contribution Account balance to purchase additional pension benefit payments or transfer the balance out of the Plan.

# III. Amount of Benefits

## 1. Retirement Benefit

Every Participant who retired at his Normal Pension Commencement Date prior to January 1, 2024, was provided an annual Retirement Benefit, payable monthly, in accordance with the terms of this Plan or the O.K. Tel. Plan as was applicable at the date they retired.

Upon retirement at his Normal Pension Commencement Date, on or after January 1, 2024 each Participant shall be entitled to receive an annual Retirement Benefit, payable monthly, equal to the sum of:

i) twenty-five percent (25%) of the total of the Participant's Required Contributions made to The Federation of Telephone Workers of British Columbia Supplemental Retirement Plan prior to January 1, 1975,

PLUS

ii) the larger of either one and three-quarters percent (1¾%) of the Participant's Average Annual Earnings as of January 1, 2024 times his years of Past Service or the Participant's Former Plan Benefit,

PLUS

iii) one and three-quarters percent (1¾%) times the Participant's years of accrued Credited Service as of January 1, 1995 multiplied by his Average Annual Earnings at January 1, 2024,

PLUS

iv) one and three-quarters percent (1¾%) times the Participant's years of accrued Credited Service subsequent to December 31, 1994 as of January 1, 2024 multiplied by his Average Annualized Earnings at January 1, 2024,

PLUS

v) one and three-quarters percent (1¾%) of the Participant's Earnings during each Plan year subsequent to January 1, 2024.

Disabled Participants as of January 1, 2024 shall also have their annual Retirement Benefits computed in accordance with the foregoing paragraphs.

In no event shall a Disabled Participant's or Participant's Retirement Benefit under item (ii) above be less than his Retirement Benefit under such item (ii) at December 31, 2023 nor shall the Retirement Benefit under items (iii) and (iv) above combined be less than his accrued Retirement Benefit under such paragraphs (iii), (iv) and (v) combined as existed at December 31, 2023.

In determining the Retirement Benefit payable to a Disabled Participant at retirement there shall be deducted from the Retirement Benefit computed in accordance with this paragraph the amount, if any, of the annual benefit being paid to such Disabled Participant by the Company on a life annuity basis on account of his disability.

A Former Participant will be entitled to a Retirement Benefit in accordance with the provisions of the Plan applicable at the date of termination of employment with the Company.

## 2. Early Retirement Benefit

A Participant who retires at an Early Pension Commencement Date shall receive an annual Retirement Benefit, payable monthly, calculated as follows:

i) If the Participant has attained the age of sixty (60) years or has both attained the age of fifty-five (55) years and has twenty-five (25) years of Pension Eligibility Service or more and has received the consent of the Trustees, in accordance with paragraph II(3)(ii) of this Appendix D, to retire at an Early Pension Commencement Date, the full amount of the Participant's Retirement Benefit shall become payable.

ii) If the Participant does not satisfy the provisions of paragraph (i) of this subsection or has not received the consent of the Trustees to retire at an Early Pension Commencement Date then the Actuarial Equivalent of his Retirement Benefit shall become payable.

iii) If the Participant has attained the age of fifty (50) years and has thirty (30) years of Pension Eligibility Service or more and has received the consent of the Trustees, in accordance with paragraph II(3)(iii) of this Appendix D, to retire at an Early Pension Commencement Date, then the Actuarial Equivalent of his Retirement Benefit, calculated on the basis that it is due to commence without reduction on the first day of the month following his attainment of age fifty-five (55), shall become payable.

iv) If the Participant has attained the age of fifty-five (55) years but has not attained the age of sixty (60) and has less than twenty-five (25) years of Pension Eligibility Service and has received the consent of the Trustees, in accordance with paragraph II(3)(iv) of this Appendix D, to retire at an Early Pension Commencement Date, then the Actuarial Equivalent of his Retirement Benefit calculated on the basis that it is due to commence without reduction on the first day of the month following his attainment of age sixty (60), shall become payable.

Pursuant to the requirements of the *Income Tax Act (Canada)* and the Regulations thereto any Retirement Benefit payable pursuant to paragraphs (ii) or (iv) of this subsection shall not exceed an amount that is equal to the Retirement Benefit reduced by one-quarter of one percent (0.25%) for each month between the first day of the month that the Retirement Benefit commences payment and the earliest of the first day of the month following the attainment of age sixty (60), the first day of the month following the attainment of thirty (30) years of Continuous Service, assuming the Participant continued to be employed and the first day of the month following the attainment of eighty (80) points, where age is added to years of Continuous Service and assuming the Participant continued to be employed.

Such Retirement Benefit, payable in the normal form shall commence as of the applicable Early Pension Commencement Date.

## 3. Disability Retirement Benefit

Commencing from January 1, 1992, all disability pensions in payment as at December 31, 1991 and future disability benefits will be payable under the LTD Plan. No disability benefits will be payable under the Plan on and after January 1, 1992 irrespective of a Participant's date of disability.

While disabled, the Participant continues to accrue credits on the basis of the rate of earnings he would be receiving had he not become disabled. A Disabled Participant shall be deemed to have recovered from total and permanent disability, as that term is used in this Plan, on the earliest of the following dates:

**For a Disabled Participant whose date of disability was prior to September 1, 1990:**

i) the date that the Disabled Participant ceases to be entitled to disability benefits under the Canada Pension Plan;

ii) the date the Disabled Participant is determined by the Trustees not to be totally and permanently disabled; and

iii) the first day of the month coinciding with or next succeeding his sixty-fifth (65th) birthday (at this date he would be eligible to retire).

**For a Disabled Participant whose date of disability was subsequent to September 1, 1990:**

i) the date that the Disabled Participant ceases to be entitled to disability benefits under the Canada Pension Plan;

ii) the date that the Disabled Participant is determined by the Trustees not to be totally and permanently disabled; and

iii) the latest of: the first day of the month coinciding with or next succeeding the Disabled Participant's sixtieth (60th) birthday, the first day of the month coinciding with or next succeeding his attainment of twenty-five (25) years of Service, the date that he ceases to be eligible to receive a disability benefit or disability loan under the Telecommunication Workers Employee Life and Health Trust, and the date he ceases to be eligible to receive disability payments from the Company's Disability and Death Benefits Plan; provided such date is not later than the first day of the month next following his sixty-fifth (65th) birthday.

## 4. Termination of Membership Benefit

A Participant may elect a refund of his Voluntary Contribution Account, if any, with interest at any time.

Upon termination prior to July 1, 2011, before completion of two (2) years of Pension Eligibility Service, a refund shall be paid of the Participant's Required Contributions, with credited interest, and the Voluntary Contribution Account, if any, with interest.

A Participant who has terminated after February 12, 1987 but before July 1, 2011 and has completed two (2) years of Pension Eligibility Service or more, or after June 30, 2011 with any amount of Pension Eligibility Service, may not elect a refund of his Required Contributions, with credited interest, at his date of termination but may elect a refund of his Voluntary Contribution Account, if any. Such a Participant shall become a Former Participant and will be entitled to a deferred Retirement Benefit commencing at his Normal Pension Commencement Date equal to the sum of his Retirement Benefit accrued to his date of termination plus any amounts provided under paragraph III(7) of this Appendix D. A Participant who becomes a Former Participant before reaching age fifty-five (55), who is neither a Management Transferee nor a person who contributions to a TELUS defined contribution plan, may transfer the Actuarial Equivalent Value of the Retirement Benefit to another plan or other permitted retirement vehicle. A Participant who is transferred to non-bargaining unit employment may not elect a refund of his Required Contributions, with credited interest, but may elect a refund of his Voluntary Contribution Account, if any, and his rights and benefits under the Plan shall be determined upon the subsequent termination of his employment.

Each Participant who elected to terminate employment with the Company in accordance with the 2002-2003 My Future Choice voluntary departure incentive program or the Voluntary Departure Incentive Program pursuant to the Collective Agreement ratified in 2005 and who has been reported by the Company as having received a payment in accordance with the VDIP option shall become an Incented Terminated Participant. Effective January 1, 2002, Former Participants shall include Incented Terminated Participants. Unless otherwise indicated, Incented Terminated Participants shall be treated the same as Former Participants.

### Early Retirement of a Former Participant

A Former Participant entitled to a deferred Retirement Benefit may elect to commence his Retirement Benefit prior to his Normal Pension Commencement Date in accordance with the early retirement provisions of paragraph III(2) of this Appendix D.

Notwithstanding the above, an Incented Terminated Participant may elect to commence his Retirement Benefit prior to his Normal Pension Commencement Date provided that such Retirement Benefit is determined as the Actuarial Equivalent of the deferred Retirement Benefit commencing at the Incented Terminated Participant's Normal Pension Commencement Date plus any amounts provided under paragraph III(7) of this Appendix D.

## 5. Death Benefit after July 30, 2011

***Before Retirement*** – A Participant's, Disabled Participant's or Former Participant's beneficiary shall be paid such Participant's Voluntary Contribution Account, if any, at such Participant's date of death and, depending on his age and years of Pension Eligibility Service and marital status at his date of death, a regular benefit payment or a lump sum refund, described as follows:

i) Prior to attaining age fifty-five (55) – his surviving spouse/beneficiary/estate shall be paid the commuted value of the Retirement Benefit, including any amounts provided under paragraph III(7) of this Appendix D, as if he had terminated employment on his date of death. An additional benefit shall be paid to a surviving non-spouse beneficiary, if one was designated on or before February 12, 1987;

ii) After attaining age fifty-five (55) with a surviving spouse – his surviving spouse shall be paid a regular monthly benefit equal to that which the spouse would receive with respect to the Retirement Benefit, including any amounts provided under paragraph III(7) of this Appendix D, had he retired, with the consent of the Trustees, on the first day of the month following his date of death on the joint and survivor option with one hundred percent (100%) continuance to the joint annuitant. An additional benefit shall be paid to a surviving non-spouse beneficiary, if one was designated on or before February 12, 1987;

iii) After attaining age fifty-five (55) and without a surviving spouse – his beneficiary or estate shall be paid the Actuarial Equivalent Value of the Retirement Benefit, including any amounts provided under paragraph III(7) of this Appendix D, had he retired, with the consent of the Trustees, on the first day of the month following his date of death on the life annuity guaranteed for fifteen (15) years option.

Notwithstanding the above, the death benefit payable under sub-paragraphs (ii) and (iii) above in respect of an Incented Terminated Participant shall be calculated as if he had retired without the consent of the Trustees on the first day of the month following his date of death.

***After Retirement*** – the Retired Participant's beneficiary is entitled to benefits in accordance with the Retired Participant's elected form of retirement income.

## 6. Normal Form of Retirement Benefit

The normal form of Retirement Benefit under the Plan shall be one providing for monthly retirement benefit payments for the remaining lifetime of the Retired Participant with the provision that, should the Retired Participant die after his Retirement Benefit has commenced but before he has received sixty (60) payments thereof, the said payments shall be continued to his designated beneficiary until sixty (60) payments in all, including monthly payments made to the Retired Participant, shall have been made. If the Retired Participant's death occurs after sixty (60) monthly payments have been made, all payments shall cease after the payment immediately preceding the Retired Participant's death.

### 7. Minimum Benefit on and after July 1, 2011 for Retirement, Termination and Pre-Retirement Death

On and after July 1, 2011, a Participant, Disabled Participant or Former Participant shall have his Retirement Benefit increased, where such increment is the sum of:

i) the Actuarial Equivalent of the excess, if any, of his Required Contributions, with credited interest, over 50% of the Actuarial Equivalent of his Retirement Benefit; and

ii) Actuarial Equivalent of the excess, if any, of his Required Contributions, with credited interest, over the Actuarial Equivalent of his Retirement Benefit plus the amount, if any, in paragraph III(7)(i) of this Appendix D.

## IV. Contributions

### 1. Participant

**Required Contributions**

Participants are required to contribute based on their age as follows:

- Under age 30 – 3% of gross earnings
- Age 30 or older but under 40 – 4% of gross earnings
- Age 40 or older but under 50 – 5% of gross earnings
- Age 50 or over – 6% of gross earnings

Disabled Participants are not required to contribute to the Plan.

**Voluntary Contributions**

Participants are permitted to make additional voluntary contributions up to the maximum permitted under the Income Tax Act. A participant may elect a refund of his Voluntary Contribution Account at any time.

### 2. Employer

The Employers currently make contributions of 10% of earnings to the Pension Plan in accordance with the Collective Agreement.

The Collective Agreement does not require the Employer to make contributions to the Plan for Disabled Participants.

# Appendix E: Summary and Reconciliation of Membership Data

Membership data as at December 31, 2023 was based on the information supplied by the Employers and records maintained under the Plan by the Plan Administrator, which provides name, sex, date of birth, date of participation, years of credited service, covered earnings and other applicable details for active participants, disabled participants, terminated vested participants, transfer to management participants, retired participants, beneficiaries and survivors.

We were also provided with the auditor's financial report prepared as at the actuarial valuation date.

We have reviewed the data and compared it to the data used in the prior actuarial valuation for consistency and reliability for use in this actuarial valuation. The main tests of sufficiency and reliability which were conducted on the membership data were as follows:

- a review of consistency of individual data items and statistical summaries between current and prior actuarial valuations;
- a review of reasonableness of individual data items, statistical summaries and changes in such information since the prior actuarial valuation;
- a comparison of the membership data and the auditor's financial statements for consistency;
- a reconciliation of Plan membership status from the prior actuarial valuation to the current actuarial valuation.

The data and information provided, with the exception of the financial statement, were unaudited. Some clarifications and verifications on certain data and information were made during the process of our review.

# Summary of Data

Various summaries of the membership data entering the actuarial valuation and membership movements since the last actuarial valuation are set out in the following tables:

## A. Active Participants

### a) Overall Summary

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 1,227 | 443 | 1,670 | 1,902 | 1,000 | 2,902 |
| Average Age[1] | 44.2 | 45.2 | 44.5 | 42.8 | 43.2 | 42.9 |
| Average Required Contribution Account Balance[2] | $ 45,595 | $ 40,350 | $ 44,204 | $ 39,414 | $ 35,856 | $ 38,188 |
| Average Voluntary Contribution Account Balance | $ 2,066 | $ 1,803 | $ 1,996 | $ 1,613 | $ 1,240 | $ 1,484 |
| Average Years of Past Service | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Average Years of Accrued Membership Service[3] | 12.5 | 12.9 | 12.6 | 11.6 | 12.6 | 11.9 |
| Average Assumed Pensionable Earnings | $ 86,231 | $ 71,683 | $ 82,372 | $ 77,306 | $ 67,992 | $ 74,096 |
| Average Accrued Benefit | $ 16,736 | $ 15,067 | $ 16,293 | $ 14,826 | $ 13,910 | $ 14,510 |

[1] In all incidents in this section, age is calculated to be age nearest birthday at actuarial Valuation Date.

[2] In all incidents in this section, Required Contributions have been adjusted to include Supplemental and Purchased Contributions.

[3] In all incidents in this section, Membership Service has been adjusted to include years of Supplemental and Purchased Service.

### b) Number of Participants Distributed by Age and Completed Years of Credited Service

| | Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age Group | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total |
| 20-24 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 25-29 | 70 | 20 | 1 | 0 | 0 | 0 | 0 | 91 |
| 30-34 | 71 | 75 | 22 | 0 | 0 | 0 | 0 | 168 |
| 35-39 | 74 | 105 | 72 | 34 | 0 | 0 | 0 | 285 |
| 40-44 | 53 | 85 | 75 | 86 | 1 | 0 | 0 | 300 |
| 45-49 | 34 | 66 | 50 | 87 | 27 | 6 | 0 | 270 |
| 50-54 | 16 | 39 | 29 | 74 | 43 | 24 | 14 | 239 |
| 55-59 | 12 | 17 | 16 | 54 | 25 | 32 | 34 | 190 |
| 60-64 | 4 | 7 | 8 | 27 | 5 | 15 | 26 | 92 |
| 65-69 | 0 | 5 | 1 | 3 | 4 | 0 | 6 | 19 |
| TOTAL | 350 | 419 | 274 | 365 | 105 | 77 | 80 | 1670 |

### c) Average Estimated Pensionable Earnings Distributed by Age and Completed Years of Credited Service

| | Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age Group | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total |
| 20-24 | $ 68,431 | $ - | $ - | $ - | $ - | $ - | $ - | $ 68,431 |
| 25-29 | $ 71,651 | $ 83,678 | $104,926 | $ - | $ - | $ - | $ - | $ 74,660 |
| 30-34 | $ 70,000 | $ 83,304 | $ 90,634 | $ - | $ - | $ - | $ - | $ 78,641 |
| 35-39 | $ 69,697 | $ 82,455 | $ 83,411 | $ 92,246 | $ - | $ - | $ - | $ 80,552 |
| 40-44 | $ 70,324 | $ 82,729 | $ 83,832 | $ 93,508 | $ 69,797 | $ - | $ - | $ 83,860 |
| 45-49 | $ 73,491 | $ 84,400 | $ 87,331 | $ 91,149 | $ 87,420 | $ 84,615 | $ - | $ 86,050 |
| 50-54 | $ 75,139 | $ 80,993 | $ 79,487 | $ 88,700 | $ 82,484 | $ 81,427 | $ 74,218 | $ 82,720 |
| 55-59 | $ 73,243 | $ 89,747 | $ 83,386 | $ 90,172 | $ 80,461 | $ 78,934 | $ 89,087 | $ 85,129 |
| 60-64 | $ 65,903 | $ 79,580 | $ 79,494 | $ 87,301 | $ 76,798 | $ 75,174 | $ 84,528 | $ 81,773 |
| 65-69 | $ - | $ 88,561 | $ 99,758 | $ 92,555 | $ 84,056 | $ - | $ 81,311 | $ 86,543 |
| TOTAL | $ 70,882 | $ 83,212 | $ 84,428 | $ 90,893 | $ 82,940 | $ 79,421 | $ 84,420 | $ 82,372 |

## B. Disabled Participants[1]

### a) Overall Summary

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 93 | 136 | 229 | 88 | 162 | 250 |
| Average Age | 51.6 | 52.1 | 51.9 | 54.0 | 52.4 | 53.0 |
| Average Required Contribution Account Balance | $ 44,338 | $ 30,109 | $ 35,888 | $ 52,063 | $ 31,088 | $ 38,471 |
| Average Voluntary Contribution Account Balance | $ 2,533 | $ 150 | $ 1,118 | $ 813 | $ 773 | $ 787 |
| Average Years of Past Service | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Average Years of Accrued Membership Service | 19.6 | 20.6 | 20.2 | 24.4 | 22.2 | 23.0 |
| Average Assumed Pensionable Earnings | $ 71,498 | $ 62,247 | $ 66,004 | $ 67,476 | $ 58,593 | $ 61,720 |
| Average Accrued Benefit | $ 23,983 | $ 21,234 | $ 22,350 | $ 28,097 | $ 21,751 | $ 23,985 |

1 Disabled participants are in receipt of monthly disability benefit payments under the LTD Plan and continuing to accrue pension benefit credits under the Plan.

### b) Number of Participants Distributed by Age and Completed Years of Credited Service

| | Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age Group | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total |
| 20-24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 30-34 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| 35-39 | 4 | 6 | 5 | 1 | 0 | 0 | 0 | 16 |
| 40-44 | 1 | 8 | 11 | 6 | 0 | 0 | 0 | 26 |
| 45-49 | 4 | 7 | 4 | 6 | 3 | 1 | 0 | 25 |
| 50-54 | 3 | 8 | 5 | 10 | 10 | 14 | 3 | 53 |
| 55-59 | 1 | 1 | 4 | 10 | 9 | 10 | 21 | 56 |
| 60-64 | 1 | 3 | 1 | 1 | 4 | 3 | 29 | 42 |
| 65-69 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| TOTAL | 19 | 36 | 31 | 34 | 27 | 28 | 54 | 229 |

### c) Average Estimated Pensionable Earnings Distributed by Age and Completed Years of Credited Service

| | Credited Service | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age Group | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | Total |
| 20-24 | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - |
| 25-29 | $ 56,738 | $ - | $ - | $ - | $ - | $ - | $ - | $ 56,738 |
| 30-34 | $ 51,753 | $ 54,465 | $ - | $ - | $ - | $ - | $ - | $ 53,787 |
| 35-39 | $ 71,984 | $ 66,435 | $ 73,796 | $ 64,661 | $ - | $ - | $ - | $ 70,012 |
| 40-44 | $ 68,482 | $ 62,368 | $ 67,634 | $ 67,455 | $ - | $ - | $ - | $ 66,005 |
| 45-49 | $ 61,051 | $ 64,437 | $ 72,917 | $ 76,708 | $ 63,985 | $ 66,686 | $ - | $ 68,233 |
| 50-54 | $ 52,888 | $ 66,171 | $ 63,657 | $ 70,059 | $ 64,349 | $ 66,650 | $ 66,570 | $ 65,721 |
| 55-59 | $ 45,796 | $ 49,940 | $ 65,607 | $ 67,440 | $ 62,582 | $ 64,262 | $ 65,687 | $ 64,604 |
| 60-64 | $ 56,009 | $ 73,008 | $ 61,860 | $ 64,661 | $ 69,769 | $ 68,988 | $ 66,664 | $ 67,163 |
| 65-69 | $ - | $ - | $ 53,932 | $ - | $ 77,397 | $ - | $ 77,397 | $ 69,576 |
| TOTAL | $ 59,989 | $ 64,176 | $ 67,779 | $ 69,685 | $ 65,006 | $ 66,049 | $ 66,477 | $ 66,004 |

## C. Former Participants

### a) Terminated Vested (Including Pending Terminations)

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 1,127 | 1,170 | 2,297 | 739 | 1,088 | 1,827 |
| Average Age | 45.2 | 49.1 | 47.2 | 45.6 | 50.5 | 48.5 |
| Average Required Contribution Account Balance | $ 20,916 | $ 19,137 | $ 20,010 | $ 16,221 | $ 17,247 | $ 16,832 |
| Average Voluntary Contribution Account Balance | $ 656 | $ 202 | $ 425 | $ 506 | $ 197 | $ 322 |
| Average Accrued Benefit[1] | $ 8,583 | $ 8,405 | $ 8,492 | $ 6,033 | $ 6,062 | $ 6,050 |

### b) Transferred to Management

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 345 | 322 | 667 | 377 | 324 | 701 |
| Average Age | 45.0 | 44.4 | 44.7 | 44.3 | 43.9 | 44.1 |
| Average Required Contribution Account Balance | $ 22,607 | $ 18,749 | $ 20,745 | $ 20,781 | $ 18,424 | $ 19,692 |
| Average Voluntary Contribution Account Balance | $ 641 | $ 257 | $ 456 | $ 227 | $ 158 | $ 195 |
| Average Accrued Benefit at Valuation Date | $ 8,490 | $ 7,196 | $ 7,865 | $ 7,776 | $ 7,137 | $ 7,481 |

[1] Average Accrued Benefit at December 31, 2020 doesn't include excess pension due to 50% rule.

## D. Retired Participants (Including Limited Members)

### a) Overall Summary

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants[1] | 4,788 | 4,620 | 9,408 | 4,606 | 4,171 | 8,777 |
| Average Age | 72.9 | 71.1 | 72.0 | 71.6 | 69.9 | 70.8 |
| Average Annual Pension at Valuation Date | $ 27,213 | $ 18,593 | $ 22,980 | $ 27,279 | $ 19,030 | $ 23,359 |
| Average Annual Pension at April 1, 2024[2] | $ 27,994 | $ 19,122 | $ 23,637 | $ 27,279 | $ 19,030 | $ 23,359 |

### b) Data Distributed by Quinquennial Age Group as at December 31, 2023

| Age Group | Number of Participants | Total Monthly Benefit on December 31, 2023 |
|---|---|---|
| Under 55 | 6 | $ 8,586 |
| 55-59 | 272 | 627,329 |
| 60-64 | 1,484 | 3,627,335 |
| 65-69 | 2,074 | 4,178,771 |
| 70-74 | 2,309 | 4,664,730 |
| 75-79 | 1,710 | 3,061,522 |
| 80-84 | 809 | 1,277,365 |
| 85-89 | 497 | 775,000 |
| 90 & Over | 247 | 310,666 |
| TOTAL | 9,408 | $ 18,531,305 |

[1] Duplicate Records are combined for this summary. (Duplicate records are due to voluntary account balances being converted into additional benefits upon retirement.)

[2] April 1, 2021 for the Valuation at December 31, 2020

## E. Beneficiaries

### a) Overall Summary

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 5 | 2 | 7 | 3 | 3 | 6 |
| Average Age | 70.8 | 67.5 | 69.9 | 72.0 | 64.3 | 68.2 |
| Average Annual Pension at Valuation Date | $ 20,007 | $ 17,507 | $ 19,293 | $ 20,376 | $ 25,308 | $ 22,842 |
| Average Annual Pension at April 1, 2024[1] | $ 20,608 | $ 18,033 | $ 19,872 | $ 20,376 | $ 25,308 | $ 22,842 |

### b) Data Distributed by Quinquennial Age Group as at December 31, 2023

| Age Group | Number of Participants | Total Monthly Benefit on December 31, 2023 |
|---|---|---|
| 55-59 | 0 | $ 0 |
| 60-64 | 2 | 1,678 |
| 65-69 | 1 | 4,373 |
| 70-74 | 2 | 720 |
| 75-80 | 2 | 4,821 |
| TOTAL | 7 | $ 11,592 |

[1] April 1, 2021 for the Valuation at December 31, 2020

## F. Survivors

### a) Overall Summary

| | At December 31, 2023 | | | At December 31, 2020 | | |
|---|---|---|---|---|---|---|
| | Males | Females | Combined | Males | Females | Combined |
| Number of Participants | 166 | 758 | 924 | 136 | 688 | 824 |
| Average Age | 74.9 | 77.8 | 77.3 | 73.6 | 76.3 | 75.9 |
| Average Annual Pension at Valuation Date | $ 12,076 | $ 17,940 | $ 16,887 | $ 11,144 | $ 16,319 | $ 15,465 |
| Average Annual Pension at April 1, 2024[1] | $ 12,431 | $ 18,478 | $ 17,392 | $ 11,144 | $ 16,319 | $ 15,465 |

### b) Data Distributed by Quinquennial Age Group as at December 31, 2023

| Age Group | Number of Participants | Total Monthly Benefit on December 31, 2023 |
|---|---|---|
| Under 55 | 8 | $ 3,566 |
| 55-59 | 17 | 22,071 |
| 60-64 | 55 | 88,379 |
| 65-69 | 90 | 155,790 |
| 70-74 | 184 | 310,610 |
| 75-79 | 187 | 284,969 |
| 80-84 | 166 | 218,987 |
| 85-89 | 145 | 175,374 |
| 90 & Over | 72 | 79,440 |
| Total | 924 | $ 1,339,187 |

[1] April 1, 2021 for the Valuation at December 31, 2020

# Reconciliation of Membership Data

| | Active | Terminated Vested[1,2] | Transferred | Disabled | Retired | Beneficiaries | Survivors |
|---|---|---|---|---|---|---|---|
| At December 31, 2020 including duplicate records | 2,902 | 1,831 | 701 | 250 | 9,186[3] | 6 | 837[4] |
| Net adjustment made after actuarial valuation date: | | (5) | | | (1) | | |
| **New Entrants:** | 437 | | | | | | |
| **Terminated:** | | | | | | | |
| • Deferred vested | (745) | 870 | (92) | (26) | | | |
| • Lump sum settlement/non vested | (319) | (99) | (36) | (3) | | | |
| • Bridged Records | | (1) | | | (3) | | |
| **Transferred:** | (150) | | 150 | | | | |
| **Disabled:** | (130) | | | 130 | | | |
| **Retired:** | | | | | | | |
| • New Retiree | (365) | (291) | (52) | (66) | 774 | | |
| • New Limited Member | | | | | 24 | | |
| • Duplicated records | | | | | 53 | | |
| **Deceased:** | | | | | | | |
| • With a Survivor Benefit | (2) | (1) | | (3) | (204) | | 210 |
| • GTD benefit continued | | | | | (5) | 5 | |
| • Without residual benefit | | | | | (394) | | (123) |
| • Lump sum settlement | (7) | (7) | (2) | (6) | (17) | (1) | |
| • Others[5] | | | | | (5) | | |
| **Benefit Payment Expired:** | | | | | | (3) | |
| **Returned to Active Status:** | 49 | | (2) | (47) | | | |
| At December 31, 2023 including duplicate records | 1,670 | 2,297 | 667 | 229 | 9,408[6] | 7 | 924[7] |
| At December 31, 2023 without duplicate records | 1,670 | 2,297 | 667 | 229 | 8,965 | 7 | 909 |

1 Including 4 participants at 12-31-2020 and 7 participants at 12-31-2023 with multiple records.

2 Not including 433 non-vested Participants and untraced terminated vested Lives at 12-31-2020 and 432 participants at 12-31-2023 not in the Penfax system.

3 Including 275 Limited Members and 409 duplicate records. Duplicate records are due to voluntary account balances being converted into additional benefits upon retirement.

4 Including 13 duplicate records. Duplicate records are due to voluntary account balances being converted into additional benefits upon retirement.

5 Combined Records, LM pension ended due to death of retired participant/ reverted pension due to death of LM/ both retiree and spouse deceased in same year/LM pension became survivor pension due death of retired participant.

6 Including 323 Limited Members and 443 duplicate records. Duplicate records are due to voluntary account balances being converted into additional benefits upon retirement.

7 Including 15 duplicate records. Duplicate records are due to voluntary account balances being converted into additional benefits upon retirement.

# Appendix F: Administrator Certification

I hereby confirm that, to the best of my knowledge and belief, for the purposes of the actuarial valuation, the membership data provided to PBI Actuarial Consultants Ltd. for the December 31, 2023 actuarial valuation of the Telecommunication Workers Pension Plan is accurate and complete.

**TELECOMMUNICATION WORKERS PENSION PLAN**

| | |
|---|---|
| June 25, 2024 | Jennifer Buchholtz |
| Date | Signature |
| | Administrator |
| | Title |