ALBERTA NON-GRID RISK SHARING POOL

OCTOBER 2022 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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FACILITY ASSOCIATION

ACTUARIAL HIGHLIGHTS

RSP ALBERTA NON-GRID

OPERATIONAL REPORT

OCTOBER 2022

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1 Summary

Note to members: this is the quarterly Actuarial Highlights we will release going forward to replace the monthly Actuarial Highlights. The next report will be available for reporting month March 2023 in April 2023, in line with the valuation implementation schedule. Please contact us with any questions or concerns in regards to this matter.

1.1 Valuation Schedule (Fiscal Year 2022)

The October 2022 Operational Report incorporates the results of an updated valuation (as at September 30, 2022) – the impact of the implementation of the valuation is discussed in section 1.2. The following table summarizes the valuation implementations scheduled for fiscal year 2021.

ALBERTA NON-GRID RISK SHARING POOL FISCAL YEAR 2022 – SCHEDULE OF VALUATIONS			
Valuation Date	**Discount Rate (per annum)**	**Operational Report**	**Description of Changes**
Sep 30, 2021 (completed)	0.81% mfad[1] 25 bp	Oct. 2021	update valuation (roll-forward): accident year 2021 loss ratio decreased 0.8 points to 80.9%; discount rate increased 8 basis points; no change to selected margins for adverse deviation
Dec. 31, 2021 (completed)	1.05% mfad 25 bp	Mar. 2022	update valuation:): accident year 2021 loss ratio decreased 2.2 points to 78.7% and accident year 2022 loss ratio increased 1.8 points to 100.2%; discount rate increased 24 basis points; no change to selected margins for adverse deviations
Mar. 31, 2022 (completed)	2.23 % mfad 25 bp	May. 2022	update valuation (roll-forward): accident year 2022 loss ratio decreased 11 points to 99.1%; discount rate increased 118 basis points; no change to selected margins for adverse deviation
Jun. 30, 2022 (completed)	3.17% mfad 25 bp	Aug. 2022	update valuation: accident year 2022 loss ratio decreased 5.0 points to 94.1%; discount rate increased 94 basis points; selected margins for adverse deviation were rolled forward one year, with no changes to selections
Sep. 30, 2022	3.56% mfad 25 bp	Oct. 2022	update valuation (roll-forward): accident year 2022 loss ratio unchanged at 94.1%; discount rate increased 39 basis points; no change to selected margins for adverse deviation

[1] The selected interest rate margin is limited to reducing the selected discount rate to 0%; the approach is that if the net impact is negative, the discount rate will be capped at 0%.

Under the proposed schedule for fiscal year 2022, the off-half valuation quarters ending March 31, 2022 and September 30, 2022 would not reflect a full valuation update of assumptions, but would rather roll-forward key assumptions from the previous valuation.

1.2 New Valuation

A valuation of the Alberta Non-Grid Risk Sharing Pool ("RSP") as at September 30, 2022 has been completed since last month's Operational Report and the results of that valuation have been incorporated into this month's Report. The valuation was completed by the Facility Association's internal actuarial group in conjunction with, and approved by, the Appointed Actuary, under the hybrid model for actuarial services.

The valuation implementation impact is summarized in the following two tables, where the abbreviations PAYs refers to prior accident years, CAY refers to the current accident year (2022), and "Prem Def" refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact ($000s) of Implementing Result of Valuation as at Sep. 30, 2022[2]

AB Non-Grid	unfav / (fav) for the month and ytd					
	IMPACT in $000s from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	(1,291)	6	(1,285)	(1,383)	-	(2,668)
CAY	-	(9)	(9)	(766)	-	(775)
Prem Def	(2,346)	(149)	(2,495)	(656)	-	(3,151)
TOTAL	(3,637)	(152)	(3,789)	(2,805)	-	(6,594)

As indicated in the preceding table, the incorporation of the new valuation had an estimated ***$6.6 million favourable impact*** on the month's net result from operations, subtracting an estimated 4.9 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **114.6%**. Due to the September valuation being a roll-forward, the favourable valuation impact is mainly driven by the increase in discounting and favourable change to the premium liabilities.

[2]In these tables, "PAYs" refers to prior accident years, "CAY" refers to the current accident year, and "Prem Def" refers to the provision for premium deficiency or the deferred policy acquisition asset (as applicable). "Nominal" refers to changes excluding any actuarial present value adjustments, whereas "apv adj." refers to actuarial present value adjustments.

The columns under the heading "ults & payout patterns" reflect the impact of changes in the valuation selected ultimates and claims payment patterns (i.e. based on unchanged selection of discount rates and margins for adverse deviation). The column "dsct rate" reflects the impact of the change in the selected discount rate and the column "margins" reflects the impact of any changes in selected margins for adverse deviations.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Sep. 30, 2022

AB Non-Grid	ytd EP 134,430 (actual)					
	IMPACT unfav / (fav) as % ytd EP from changes in:					
	ults & payout patterns			dsct rate	margins	
	Nominal [1]	apv adj. [2]	sub-tot [3]	apv adj. [4]	apv adj. [5]	TOTAL [6]
PAYs	(1.0%)	-	(1.0%)	(1.0%)	-	(2.0%)
CAY	-	-	-	(0.6%)	-	(0.6%)
Prem Def	(1.7%)	(0.1%)	(1.9%)	(0.5%)	-	(2.3%)
TOTAL	(2.7%)	(0.1%)	(2.8%)	(2.1%)	-	(4.9%)

The impact of the **nominal changes** is shown in column [1] of the two preceding summary tables. The change in the selected nominal ultimates was **favourable by $3.6 million** overall. This reflects the impact attributable to the changes in the selected ultimate loss ratios (i.e. for each accident year, it is the product of life-to-date earned premium for the accident year and the change in the selected ultimate loss ratio). As this quarter is a roll-forward valuation, the impacts are mainly driven by claims development on short-tailed lines of business and on older accident years. Since the impact is relatively small, this indicates that claims are developing more or less as expected.

The **PAYs** overall showed a **$1.3 million favourable** nominal variance or 0.8% of the PAYs nominal unpaid balance of $155.1 million determined at the end of last month (September 2022), due to lower than expected levels of claim development.

The CAY and premium deficiency impacts are a result of the change in the selected loss ratio for accident year **2022** (unchanged from last quarter at 94.1%) and **2023** (decreased 3.7 points to 98.1%). The improvement in 2023 loss ratios, which reduces the premium deficiency, is due to Alberta Insurance Rate Board's announced 10% rate increase to Grid rates effective Jan. 1, 2023 (our loss ratio projection of the Non-Grid pool uses the Grid rate changes as a proxy for the non-Grid rate level).

The impacts related to actuarial present value ("apv") adjustments are split into the impact prior to any change in the selected discount rate and selected margins for adverse deviations or "MfADs" (at the level they were selected i.e. coverage and accident half-year), the impact of then updating the discount rate, and finally the impact of any changes to the MfADs (at the level they were selected). The changes in actuarial present value adjustments are shown in the preceding summary tables in columns [2], [4], and [5].

Column [2] recognizes that changing the nominal selections also changed the unpaid estimates (including changes to the relative mix by government line, which had an impact on the weighted-average MfADs). It also reflects the fact that we updated the projected emergence of claims payments, resulting in a change in the projected cash flows. These changes generated a favourable change of $152 thousand in the actuarial present value adjustments, prior to any changes in the selected discount rate and/or MfADs.

Updated projected cash flows were reviewed against the risk-free curve calculated monthly by the

Fiera Capital Corporation[3] as at Sep. 30, 2022, which replaced the previously selected risk-free yield curve, derived from Government of Canada benchmark bond yields. [4] accounts for the change in the **discount rate** selected (average discount rate increased 39 basis points to **3.56%**), indicating a favourable impact of $2.8 million. The impact related only to claims liability (i.e. PAYs plus CAY) was $2.1 million at October 2022 – this compares to the $2.2 million change one would estimate as the impact by interpolation using the interest rate sensitivity table provided last quarter's Actuarial Highlights.

Column [5] accounts for any changes to selected MfADs. The selected **investment rate MfAD** was **left unchanged at 25 basis points** and the selected **claims development MfADs** at the coverage and accident year level were also left unchanged (as per our usual practice, development margins are reviewed with the June 30 valuation).

Consideration was given to recent legal decisions and changes in legislation / regulation as noted above and outlined in section 1.4.

1.3 Appointed Actuary and Hybrid Actuarial Services Model

The Annual General Meeting of the members of Facility Association ("FA") appointed Mr. Cosimo Pantaleo as the Appointed Actuary at its meeting on March 3, 2022.

Facility Association operates under a hybrid model in relation to the management and provision of actuarial services. Under this model, actuarial services are performed by both Facility Association's internal staff and its external actuarial consulting firm. The hybrid model approach maximizes the efficiency of resource allocation while providing access to additional expertise and capacity as needed.

1.4 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation

Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. Descriptions of some of the more recent (i.e. within the last five years) changes are provided below.

In the **Alberta Treasury Board and Finance Notice 04-2018** (Clarification of Minor Injury Regulation), dated **October 17, 2018**, the Alberta Superintendent of Insurance advised that clarifying amendments have been made to the definition of minor injuries under the Minor Injury Regulation (MIR). Consideration of these changes were included in the industry trend analysis supporting the calculation of our valuation expected loss ratios.

Amendments to the **Alberta Automobile Accident Insurance Benefits Regulation, Diagnostic and Treatment Protocols Regulation, and Minor Injury Regulation** came into force effective November 1, 2020, amending definitions and various benefit maximums defined in these regulations. **Alberta Bill 41** (Insurance (Enhancing Driver Affordability and Care) Amendment Act, 2020) **received royal assent on December 9, 2020**. Bill 41 amends the Insurance Act to: 1) control the use of expert witnesses in Court of Queen's Bench proceedings where damages for bodily injury or death arising

[3] https://www.fieracapital.com/en/institutional-markets/cia-ifrs-17-curves

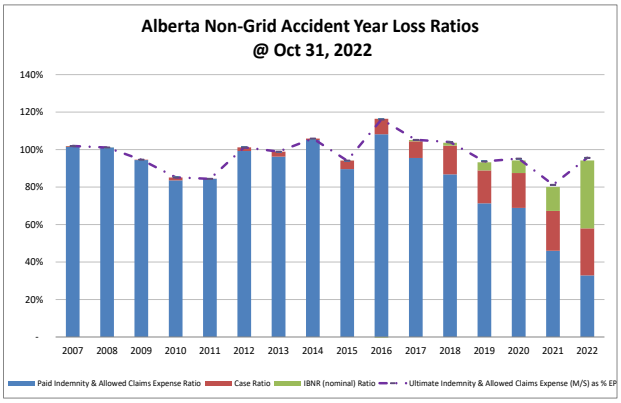
from use or operation of a motor vehicle as defined in the Traffic Safety Act are claimed; 2) introduce direct compensation for property damage (DCPD) into the province; 3) amend the calculation of pre-judgment interest on damages awarded for bodily injury or death arising directly or indirectly form the use or operation of an automobile; and 4) amend provisions regarding the regulation of auto insurance rates by the Alberta Automobile Insurance Rate Board. Consideration of these changes were included in the industry trend analysis supporting the calculation of our valuation expected loss ratios. There is an estimated 20% reduction to loss costs for Bodily Injury claims in Alberta, as well as an estimated 8% increase in accident benefits loss costs, effective Jan. 1, 2021, which have been reflected in our estimates.

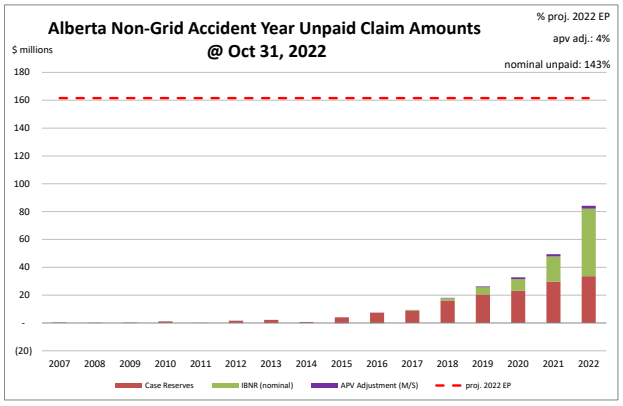
In **Jackson v. Cooper, 2022 ABKB 609**, the decision, released on September 9, 2022, clarified the interest rates to be used in the calculation of pre-judgement interest awards on pecuniary damages. As described above, Bill 41 (effective December 9, 2020) amended calculation of pre-judgement interest on non-pecuniary damages in s. 585.2(2) of the Insurance Act. Up for debate was the question of whether this change applied retroactively. The court concluded it does not apply retroactively, and awarded pre-judgement interest at the old rate (4%) from the date of the accident up to the coming into force of s. 585.2(2) (December 9, 2020), and thereafter pre-judgment interest in accordance with section 4(2) of the Judgment Interest Act.

It is unclear whether the estimated impact of Bill 41 (20% reduction to loss cost for Bodily Injury claims, as described above) is affected by this decision. If the underlying assumption of that reduction was a retroactive application of the amendment to pre-judgement interest, it is possible the 20% reduction could be overstated. At this time, no changes have been made in our estimates to reflect this until we can assess whether this ruling represents a material change in the underlying Bill 41 impact assumptions.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities[4] booked by accident year. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2022 full year earned premium (the red hash-mark line) to provide some perspective.





"M/S" refers to "Member Statement" values – that is, actuarial present value adjustments at the selected discount rate.

claim liabilities ($000s)

	amt	%
case	149,341	62.9%
ibnr	82,316	34.7%
M/S apv adjust.	5,882	2.5%
M/S total	237,539	100.0%

The current actuarial present value adjustments balance ($5.9 million – see the table to the left) represents 4% of the earned premium projected for the full year 2022 (see the upper right corner of the preceding chart on the right). If our current estimates of the nominal unpaid amounts prove to match actual claims payments, the actuarial present value adjustments will be released into the net operating result over future periods.

The table above breaks down the Member Statement (M/S) claim liabilities total into component parts, showing that the majority of the claim liabilities for this RSP are in case reserves. Approximately 81% of the IBNR balance relates to accident years 2021 and 2022 (see Exhibit B). Approximately 89% of the M/S total claim liabilities are related to accident years 2018-2022 inclusive (i.e. the most recent 5 accident years), and approximately 2% is related to accident years 2012 and prior (i.e. prior to the most recent 10 accident years).

[4]Claim liabilities refer to provision for unpaid indemnity and allowed claims expenses. Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this discussion.

The following tables summarize the premium liabilities and the total policy liabilities.

premium liabilities ($000s)	amt	%
unearned prem	91,112	100.0%
prem def/(dpac)	(2,258)	(2.5%)
M/S apv adjust.	2,220	2.4%
M/S total	91,074	100.0%

policy liabilities ($000s)	amt	%
claim	231,657	70.5%
premium	88,854	27.0%
M/S apv adjust.	8,102	2.5%
M/S total	328,613	100.0%

2 Activity since previous valuation implementation

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded since the prior implementation differ from the prior projection.

Alberta Non-Grid RSP Actual vs Projected Summary: Recorded Transaction Amounts ($ thousands)

AY Group	Share Year	Share Month	Actual Earned Premium (000s)	Actual minus Projected Earned Premium (000s)	Actual Paid Claims (000s)	Actual minus Projected Paid Claims (000s)	Actual Recorded Claims (000s)	Actual minus Projected Recorded Claims (000s)
PAY	**2022**	September	(60)	(60)	7,937	3,771	6,876	4,609
		October	(7)	(7)	4,306	(208)	954	(1,087)
PAY Total			**(67)**	**(67)**	**12,243**	**3,563**	**7,830**	**3,522**
CAY	**2022**	September	13,701	(1,137)	6,495	1,823	10,006	2,453
		October	14,044	(325)	7,129	1,827	9,651	(623)
CAY Total			**27,745**	**(1,462)**	**13,624**	**3,650**	**19,657**	**1,830**
Grand Total			**27,678**	**(1,529)**	**25,867**	**7,213**	**27,487**	**5,352**

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of the variance. The variances are also reviewed as part of the quarterly valuation process, as an indicator of changes in the claims development process or potential bias in ultimate claims estimates.

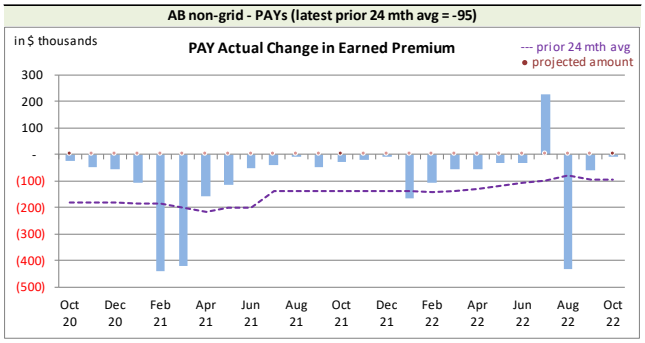
More detailed analysis and commentary on actual vs. projected for the most recent reporting months is provided below.

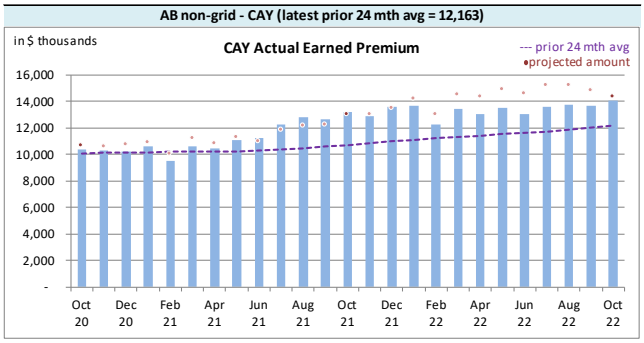
2.1.a Actual vs. Projected (AvsP): Earned Premium

The following charts show actual **earned premium**[5] activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

[5]Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

*Alberta non-Grid RSP Actual **Earned Premium** by Calendar Month*



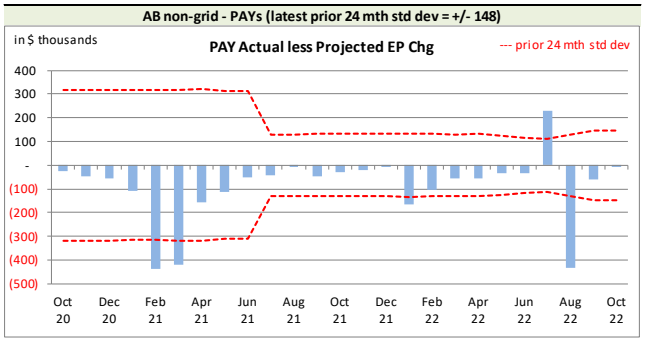


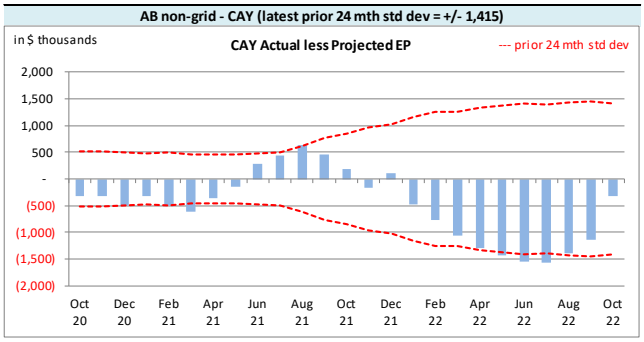
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels, although relatively high levels generally occur at the beginning of each year.

On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(95)	12,163
std dev	148	1,415
A-P <> std dev	5	6
% <> std dev	20.0%	24.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

The associated variance between the actual changes and the projections from the previous month are shown in the following charts. **Earned premium** change projections are all attributed to the current accident year as the projection upload does not accept **earned premium** changes for other accident years. We do not see this limitation as being significant for our purposes, but it does mean that the actual less projection variance will equal the actual **earned premium** change in relation to prior accident years.

*Alberta non-Grid RSP Actual vs. Projected Summary: **Earned Premium** Variances by Calendar Month*





We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[6], with actuals generally lower than projected, although the magnitude is not high relative to monthly premium. In addition to the PAYs' bias, the CAY has also shown bias[7], with actuals being generally lower than projected, and while we modified our

[6]The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

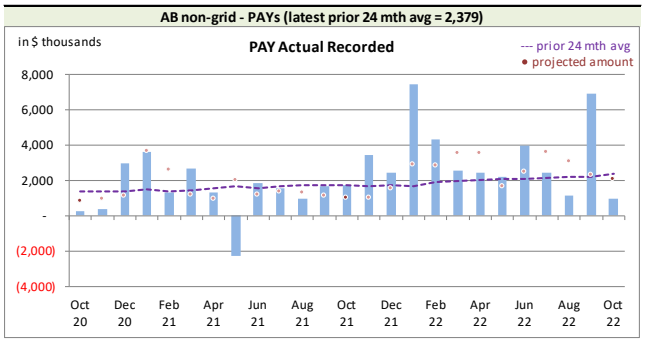
[7]We measure bias based on a 95% confidence range for a binominal distribution with trials based on the range being considered (25 in this case) and 50% probability of success. The rolling 25-month CAY variances at May 2022 had only 3 months where the actuals was higher than projected, and as the 95% confidence range is 8 to 17, bias continues to be indicated.

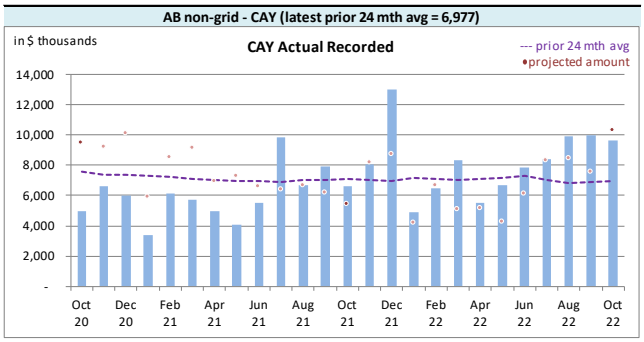
projections processes in response, bias still exists. Over time, we may consider other projection approaches to address the bias issue, but it is not currently deemed as priority.

2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

The following charts show actual **recorded** activity (**paid** and case reserve changes), in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

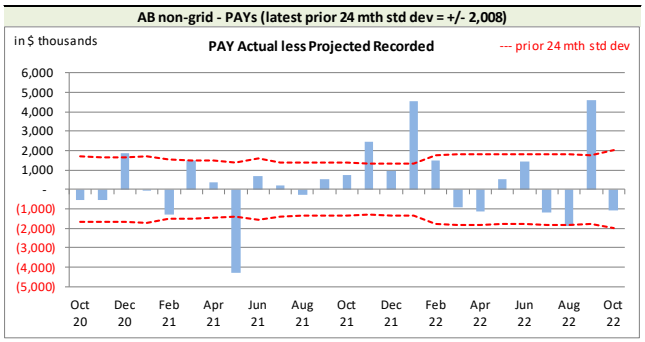
*Alberta non-Grid RSP Actual **Recorded** by Calendar Month*

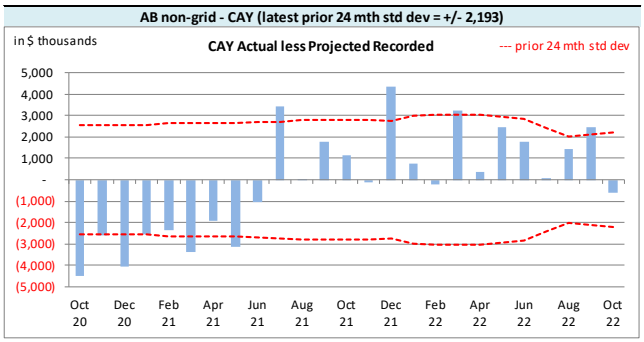




Recorded activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*Alberta non-Grid RSP Actual vs Projected Summary: **Recorded** Variances by Calendar Month*





On Latest $ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	2,379	6,977
std dev	2,008	2,193
A-P <> std dev	7	9
% <> std dev	28.0%	36.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	no better	no better

With respect to **recorded** indemnity & allowed claims expense activity, 28% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (14 of 25 variances are positive).

The current accident year (CAY) **recorded** variances fell outside of one standard deviation 36% of the

time over the last 25 calendar months (see the preceding table on the left), suggesting that the projection process has performed worse than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (13 of 25 variances are positive).

The method for establishing IBNR adjusts automatically for changes in **earned premium** and **recorded** claims activity level (see sections 2.2 and 3).

We have included, for reference, the following charts related to levels influencing **recorded** activity.

Alberta non-Grid RSP Levels that influence[8] ***Recorded*** *activity by Calendar Month*

We track PAY beginning IBNR as **recorded** activity comes out of IBNR. Changes in the PAY beginning IBNR (see upper left of the preceding group of charts) occur for several possible reasons:

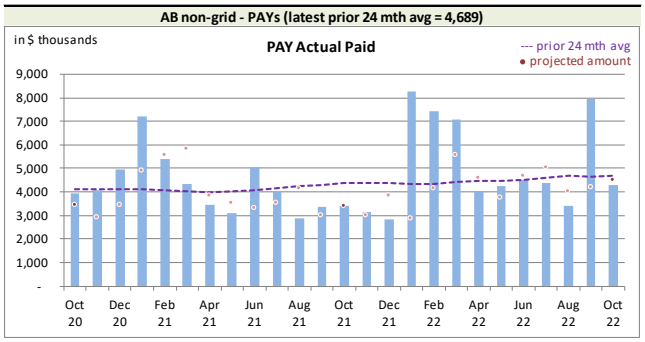
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY(occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

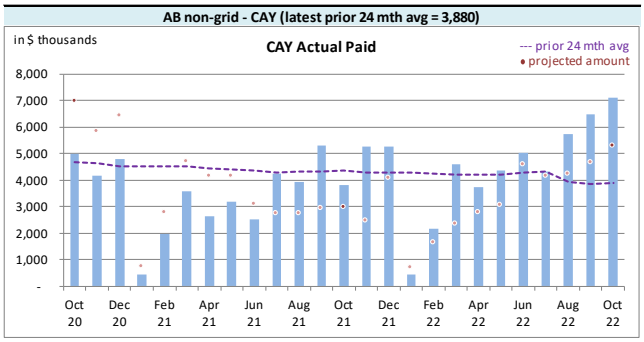
[8]Our recorded activity projections for the prior accident years are based on selected ratios of recorded activity to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date IBNR to year-to-date selected ultimate (i.e. selected LR x earned premium), deriving year-to-date recorded as selected ultimate less IBNR. In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

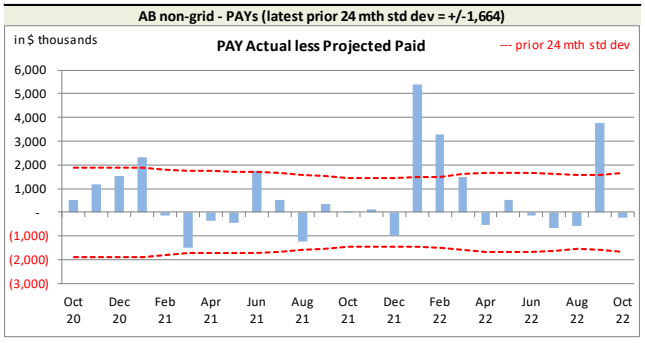
*Alberta non-Grid RSP Actual **Paid** activity by Calendar Month*

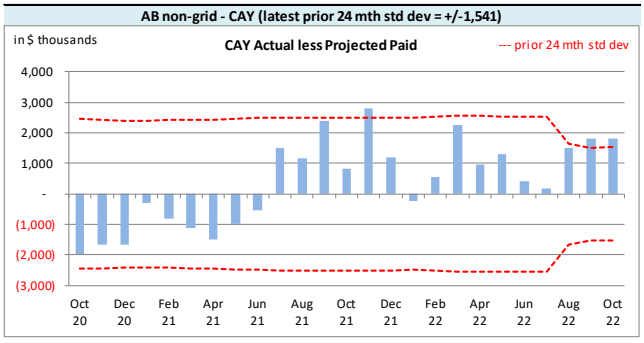




Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*Alberta non-Grid RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month*





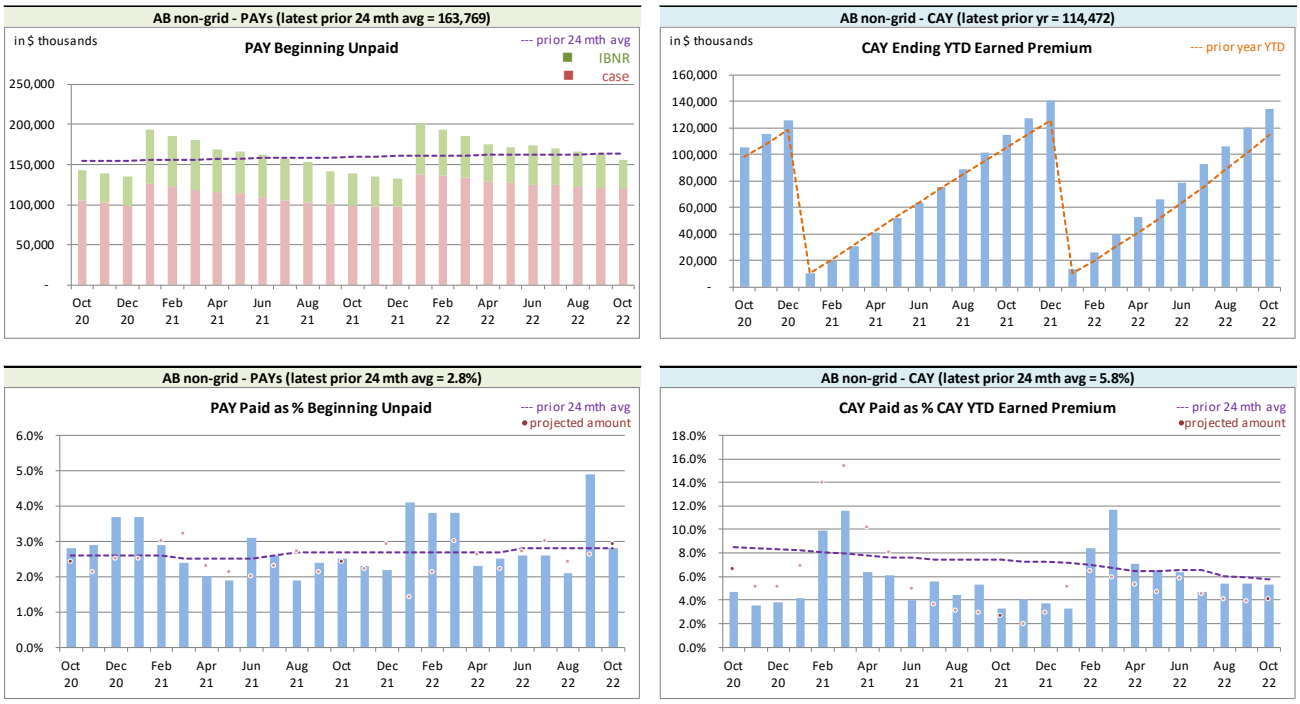
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	4,689	3,880
std dev	1,664	1,541
A-P <> std dev	5	3
% <> std dev	20.0%	12.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 20% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias has not been indicated at a 95% confidence level on a lagging 24-month basis (14 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 12% of the time over the last 25 calendar months (see the preceding table), suggesting the projection process has performed better than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (15 of 25 variances are positive).

We have included, for reference, the following charts related to levels influencing **paid** activity.

*Alberta non-Grid RSP Levels that influence[9] **Paid** activity by Calendar Month*



We track the PAY beginning unpaid balance (case and IBNR) as **paid** activity comes out of the unpaid balance. Changes in the PAY beginning unpaid balance (see upper left of the preceding group of charts) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning unpaid balance change one month after the valuation is implemented, i.e. the change will generally show in April, June, September, and November).

2.2 Actuarial Provisions

An ultimate loss ratio matching method (described in section 3) is used to determine the month's IBNR[10], and factors are applied to the nominal unpaid claims liability (case plus IBNR) to determine the discount amount (shown as a negative value to indicate its impact of reducing the liability) and the Provisions for Adverse Deviations. The loss ratios and the factors used to determine the

[9]Our paid projections for the prior accident years are based on selected ratios of paid to beginning unpaid balances, whereas the current accident year projections are based on selected ratios of year-to-date paid to year-to-date selected ultimate indemnity (i.e. selected LR x earned premium). In both cases, the ratio selection is based on our review of the more recent recorded activity and recent AvsP analyses.

[10]For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".

projections and actuals were based on the applicable valuation.

Exhibit G shows the accident year IBNR amount change from last month to this month broken down into:

(i) the change projected last month;

(ii) the additional change due to variances in earned premium (because we apply a loss ratio to earned premium in determining ultimate level) and/or recorded claims (as IBNR is calculated as ultimate less recorded) differences; and

(iii) the additional change due to valuation implementation impacts (as applicable)

3 Ultimate Loss Ratio Matching Method

An "ultimate loss ratio matching method" continues to be applied to the current month and two projected months shown in the Operational Reports, with IBNR determined by accident year as follows:

(a) Earned premium to-date
(b) Ultimate loss[11] ratio per latest valuation
(c) Estimated ultimate incurred = (a) x (b)
(d) Recorded indemnity & allowed claims expense to-date
(e) IBNR = (c) – (d)

4 Calendar Year-to-Date Results

The following table summarizes the calendar year-to-date results for indemnity & allowed claims expenses[12], including IBNR.

In calculating the amounts as percentages of earned premium, the calendar year-to-date earned premium has been used, which includes earned premium associated with the current accident year but also earned premium adjustments related to prior accident years. Specifically, the current accident year (CAY) ratio in the table is 94.6% rather than 94.1% (the valuation ultimate ratio for accident year 2022), as the calendar year-to-date earned premium includes prior accident year earned premium adjustments. (Note that the ratios in this table may differ slightly from those shown in the Alberta Non-Grid RSP Summary of Operations due to rounding.)

[11]"Loss" here refers to indemnity and allowed claims expenses, but does not include the claims expense allowance included in member company overall expense allowances ("Expense Allowance" in the Operational Report).

[12]Allowed claims expenses are first party legal and other expenses as listed in the RSP Claims Guide. Claims expenses paid through the member company expense allowance are NOT included in this analysis.

Alberta Non-Grid RSP Calendar Year-to-Date Indemnity & Allowed Claims Expense Summary ($ thousands)

Table 04	YTD Nominal Values		YTD actuarial present value adjustment		YTD Total		Change from Prior Month YTD	
	Amount	% EP	Amount	% EP	Amount	% EP	Amount	LR pts
PAYs	3,805	2.9%	(15,602)	(11.7%)	(11,797)	(8.8%)	(2,832)	(1.3%)
CAY	126,210	94.6%	2,063	1.5%	128,273	96.2%	12,651	(0.7%)
TOTAL	130,015	97.5%	(13,539)	(10.1%)	116,476	87.3%	9,818	(2.0%)

("% EP" based on 2022 calendar year-to-date earned premium; ratios may not total due to rounding)

In general, prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments, except when valuations are implemented. The loss ratio change year-to-date in Table 04 reflects not only changes in the prior accident year levels, but also the increase in the calendar year-to-date earned premium with an additional month's earned premium, and due the impact of valuation implementation.

For the current accident year (CAY), changes in the year-to-date total reflects the additional month's exposure and regular changes to actuarial present value adjustments as the year ages, and due the impact of valuation implementation.

5 Current Operational Report – Additional Exhibits

Section 6 provides exhibits pertaining to the actuarial provisions reflected in the current month's Operational Report.

IBNR (including actuarial present value adjustments) presented in section 6, Exhibit A, were derived on a discounted basis, and therefore reflect the time value of money and include an explicit provision for adverse deviations in accordance with accepted actuarial practice in Canada.

IBNR presented in section 6, Exhibit B, does NOT include any actuarial present value adjustments. The "Total IBNR" from this exhibit is shown in the Operational Report as "Undiscounted IBNR".

The ultimate loss ratios detailed in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the Alberta Non-Grid Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR reflected in the current month's Operational Report was derived as the difference between the estimated ultimate for the claims amount (i.e. earned premium x ultimate loss ratio) and the associated current recorded amounts (life-to-date payments plus current case reserves).

6 EXHIBITS

The exhibits listed below are provided on the pages that follow:

EXHIBIT A	IBNR for Member Sharing – includes Actuarial Present Value Adjustments
EXHIBIT B	IBNR
EXHIBIT C	Premium Liabilities
EXHIBIT D	Projected Year-end Policy Liabilities
EXHIBIT E	Discount Rate & Margins for Adverse Deviations
EXHIBIT F	Interest Rate Sensitivity
EXHIBIT G	Components of IBNR Change During Month

EXHIBIT A

IBNR for Member Sharing – includes Actuarial Present Value Adjustments

TABLE EXHIBIT A

IBNR + M/S actuarial present value adjustments

discount rate 3.56%

interest rate margin 25 basis pts

Accident Year	Actual Sep. 2022	Actual Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Feb. 2023	Projected Mar. 2023	Projected Dec. 2023
	Amounts in $000s							
2006	84	84	81	80	79	78	76	53
2007	99	99	96	93	94	92	89	65
2008	74	74	71	70	69	68	66	48
2009	593	(22)	(22)	(21)	(14)	(15)	(14)	(10)
2010	4	71	70	67	78	75	74	55
2011	(33)	(34)	(32)	(31)	(30)	(30)	(29)	(21)
2012	180	8	8	7	21	19	17	14
2013	(57)	-	1	-	35	34	32	26
2014	(71)	4	4	4	18	18	17	14
2015	196	(42)	(40)	(35)	14	17	18	9
2016	454	(222)	(216)	(212)	(486)	(473)	(460)	(335)
2017	1,086	724	702	688	705	695	677	486
2018	1,556	1,910	1,857	1,814	1,554	1,539	1,497	1,069
2019	4,378	5,670	5,605	5,278	4,771	4,588	4,239	2,634
2020	12,684	9,675	9,123	8,573	8,420	7,964	7,539	4,478
2021	20,120	19,562	19,000	18,624	18,450	17,843	17,100	9,785
2022	47,583	50,582	53,304	55,771	52,525	50,465	46,518	30,105
TOTAL	88,985	88,198	89,666	90,822	93,340	94,652	92,967	67,386
Change		(787)	1,468	1,156	2,518	1,312	(1,685)	

Please see Exhibit G, page 1 for Components of Change during Current Month

EXHIBIT B

IBNR

TABLE EXHIBIT B

Amounts in $000s

IBNR

Ultimate Loss Ratio	Accident Year	Actual Sep. 2022	Actual Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Feb. 2023	Projected Mar. 2023	Projected Dec. 2023
87.0%	2006	76	76	74	73	72	71	69	48
101.9%	2007	65	65	63	62	61	60	58	42
101.1%	2008	70	70	68	67	66	65	63	46
94.6%	2009	546	(28)	(27)	(26)	(26)	(26)	(25)	(18)
85.1%	2010	(44)	29	28	27	26	26	25	18
84.4%	2011	(34)	(34)	(33)	(32)	(31)	(31)	(30)	(22)
101.2%	2012	144	(11)	(11)	(11)	(11)	(11)	(11)	(8)
98.9%	2013	(72)	9	9	9	9	9	9	8
105.9%	2014	(64)	21	20	20	20	20	19	15
94.3%	2015	296	116	113	111	109	108	105	75
116.1%	2016	408	(257)	(249)	(244)	(239)	(237)	(231)	(164)
105.2%	2017	969	706	685	671	658	651	634	454
103.7%	2018	1,113	1,632	1,583	1,551	1,522	1,507	1,468	1,047
93.2%	2019	3,557	5,047	4,997	4,692	4,415	4,238	3,899	2,361
94.1%	2020	10,947	8,350	7,832	7,315	7,000	6,559	6,159	3,350
80.1%	2021	18,030	17,965	17,426	17,077	16,684	16,100	15,392	8,364
94.1%	2022	44,955	48,519	51,098	53,432	50,226	48,217	44,360	28,471
	TOTAL	81,003	82,316	83,716	84,833	87,247	88,415	86,681	60,398
	Change		1,313	1,400	1,117	2,414	1,168	(1,734)	

Please see Exhibit G, page 2 for Components of Change during Current Month

EXHIBIT C

Premium Liabilities

TABLE EXHIBIT C

Amounts in $000s

Premium Liabilities	Actual Sep. 2022	Actual Oct. 2022	Projected Nov. 2022	Projected Dec. 2022	Projected Jan. 2023	Projected Feb. 2023	Projected Mar. 2023	Projected Dec. 2023
(1) unearned premium (UP)	89,311	91,112	93,859	92,818	92,092	90,699	90,572	99,585
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	102.4%	100.0%	100.5%	101.2%	101.2%	101.2%	101.3%	103.8%
(3) expected future costs {(1) x (2)}	91,448	91,074	94,356	93,890	93,171	91,802	91,756	103,390
(4) premium deficiency / (deferred policy acquisition cost)	2,137	(38)	497	1,072	1,079	1,103	1,184	3,805
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	99.1%	97.5%	98.1%	98.7%	98.7%	98.7%	98.8%	101.3%
(6) expected future costs {(1) x (5)}	88,511	88,854	92,056	91,602	90,901	89,564	89,519	100,870
(7) premium deficiency / (deferred policy acquisition cost)	(800)	(2,258)	(1,803)	(1,216)	(1,191)	(1,135)	(1,053)	1,285

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2022, broken down by component.

Alberta non-Grid	Projected Balances as at Dec. 31, 2022 ($000s)									
ending 2022	nominal values			actuarial present value adjustments (apvs)						
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL
2006	(2)	73	71	-	-	7	-	7	7	78
2007	278	62	340	(3)	-	34	-	34	31	371
2008	(35)	67	32	-	-	3	-	3	3	35
2009	144	(26)	118	(6)	-	12	(1)	11	5	123
2010	1,004	27	1,031	(61)	4	103	(6)	97	40	1,071
2011	64	(32)	32	(2)	-	3	-	3	1	33
2012	1,419	(11)	1,408	(119)	8	141	(12)	129	18	1,426
2013	2,040	9	2,049	(206)	13	205	(21)	184	(9)	2,040
2014	619	20	639	(77)	5	64	(8)	56	(16)	623
2015	3,759	111	3,870	(514)	32	387	(51)	336	(146)	3,724
2016	6,799	(244)	6,555	(598)	38	651	(59)	592	32	6,587
2017	7,926	671	8,597	(813)	51	860	(81)	779	17	8,614
2018	15,234	1,551	16,785	(1,365)	86	1,679	(137)	1,542	263	17,048
2019	19,448	4,692	24,140	(1,749)	111	2,398	(174)	2,224	586	24,726
2020	22,565	7,315	29,880	(2,334)	149	3,735	(292)	3,443	1,258	31,138
2021	29,198	17,077	46,275	(3,845)	245	5,613	(466)	5,147	1,547	47,822
PAYs (sub-total):	110,553	31,401	141,954	(11,692)	742	15,908	(1,308)	14,600	3,650	145,604
CAY (2022)	39,692	53,432	93,124	(7,731)	492	10,445	(867)	9,578	2,339	95,463
claims liabilities:	150,245	84,833	235,078	(19,423)	1,234	26,353	(2,175)	24,178	5,989	241,067
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	92,818	(1,216)	91,602	(6,111)	390	8,585	(576)	8,009	2,288	93,890
										*Total may not be sum of parts, as apvs apply to future costs within UPR
policy liabilities:			**326,680**	**(25,534)**	**1,624**	**34,938**	**(2,751)**	**32,187**	**8,277**	**334,957**

EXHIBIT E

Discount Rate & Margins for Adverse Deviations

The tables below present selected margins for adverse development by coverage (the total is a weighted average, based on the unpaid claims projection for December 31, 2022 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Accident Year	Selected Claims Development MfADs			
	Third Party Liability	Accident Benefits	Other Coverages	Total
	Margins	Margins	Margins	Margins
2005	10.0%	10.0%	10.0%	10.0%
2006	10.0%	10.0%	10.0%	10.0%
2007	10.0%	10.0%	10.0%	10.0%
2008	10.0%	10.0%	10.0%	10.0%
2009	10.0%	10.0%	10.0%	10.0%
2010	10.0%	10.0%	10.0%	10.0%
2011	10.0%	10.0%	10.0%	10.0%
2012	10.0%	10.0%	10.0%	10.0%
2013	10.0%	10.0%	10.0%	10.0%
2014	10.0%	10.0%	10.0%	10.0%
2015	10.0%	10.0%	10.0%	10.0%
2016	10.0%	10.0%	7.9%	9.9%
2017	10.0%	10.0%	9.9%	10.0%
2018	10.0%	10.0%	10.0%	10.0%
2019	10.0%	10.0%	6.4%	9.9%
2020	12.5%	10.0%	12.5%	12.5%
2021	12.4%	10.0%	8.4%	12.1%
2022	12.2%	10.0%	5.5%	11.2%
2023	11.8%	10.0%	5.1%	9.4%
prem liab	11.8%	10.0%	5.1%	9.4%

discount rate:	3.56%
margin (basis points):	25

*prem liabilities as at 2022m09

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2022 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2022, and are based on more up-to-date information). We have included the most recent valuation selection (3.17%), the prior valuation assumption (2.23%) and the prior fiscal year end valuation assumption (0.22%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2022 projected Unpaid							
AY	2.56%	3.06%	3.56%	4.06%	4.56%	5.06%	3.17%	0.81%
2005 & prior	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-
2007	219	219	218	218	218	218	219	220
2008	-	-	-	-	-	-	-	-
2009	151	150	149	148	147	146	150	155
2010	1,077	1,068	1,059	1,050	1,042	1,033	1,066	1,110
2011	67	66	66	65	64	64	66	70
2012	1,516	1,497	1,479	1,462	1,445	1,428	1,493	1,583
2013	2,167	2,135	2,105	2,075	2,045	2,017	2,129	2,283
2014	659	648	636	625	615	604	645	702
2015	3,567	3,497	3,430	3,365	3,302	3,241	3,482	3,828
2016	7,979	7,876	7,776	7,679	7,585	7,493	7,854	8,368
2017	8,208	8,098	7,991	7,888	7,788	7,692	8,074	8,624
2018	16,888	16,694	16,507	16,326	16,150	15,979	16,653	17,616
2019	24,918	24,664	24,418	24,179	23,947	23,721	24,609	25,868
2020	31,995	31,643	31,300	30,966	30,642	30,326	31,566	33,314
2021	47,861	47,296	46,747	46,213	45,694	45,188	47,174	49,972
2022	93,227	92,121	91,045	90,000	88,983	87,994	91,881	97,368
Total	240,499	237,673	234,928	232,260	229,666	227,144	237,062	251,081
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Dollar Impact Relative to Valuation Assumption							
AY	2.56%	3.06%	3.56%	4.06%	4.56%	5.06%	3.17%	0.81%
Total	5,571	2,745	-	(2,668)	(5,261)	(7,784)	2,134	16,153
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

	Percentage Impact Relative to Valuation Assumption							
AY	2.56%	3.06%	3.56%	4.06%	4.56%	5.06%	3.17%	0.81%
2005 & prior	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2005	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2006	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2007	0.2%	0.1%	0.0%	-0.1%	-0.2%	-0.4%	0.1%	0.7%
2008	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2009	1.3%	0.7%	0.0%	-0.7%	-1.3%	-1.9%	0.5%	3.8%
2010	1.7%	0.8%	0.0%	-0.8%	-1.6%	-2.4%	0.7%	4.8%
2011	2.2%	1.1%	0.0%	-1.1%	-2.1%	-3.1%	0.8%	6.2%
2012	2.5%	1.2%	0.0%	-1.2%	-2.4%	-3.5%	0.9%	7.0%
2013	3.0%	1.5%	0.0%	-1.4%	-2.8%	-4.2%	1.1%	8.5%
2014	3.6%	1.8%	0.0%	-1.7%	-3.4%	-5.0%	1.4%	10.4%
2015	4.0%	2.0%	0.0%	-1.9%	-3.7%	-5.5%	1.5%	11.6%
2016	2.6%	1.3%	0.0%	-1.2%	-2.5%	-3.6%	1.0%	7.6%
2017	2.7%	1.3%	0.0%	-1.3%	-2.5%	-3.7%	1.0%	7.9%
2018	2.3%	1.1%	0.0%	-1.1%	-2.2%	-3.2%	0.9%	6.7%
2019	2.0%	1.0%	0.0%	-1.0%	-1.9%	-2.9%	0.8%	5.9%
2020	2.2%	1.1%	0.0%	-1.1%	-2.1%	-3.1%	0.9%	6.4%
2021	2.4%	1.2%	0.0%	-1.1%	-2.3%	-3.3%	0.9%	6.9%
2022	2.4%	1.2%	0.0%	-1.1%	-2.3%	-3.4%	0.9%	6.9%
2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.4%	1.2%	0.0%	-1.1%	-2.2%	-3.3%	0.9%	6.9%
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

EXHIBIT G

Components of Member Statement IBNR (i.e. "Discounted") Change

(September 2022 to October 2022)

RSP **Alberta Non-Grid**
AccountCode Desc **IBNR - Discounted**

M/S IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	42	(2)	2	-	-	-	42
2005	13	-	-	-	-	-	13
2006	84	(7)	7	-	-	-	84
2007	99	(7)	7	-	-	-	99
2008	74	(7)	7	-	-	-	74
2009	593	(36)	36	(615)	(615)	(103.7%)	(22)
2010	4	-	(1)	68	67	1,675.0%	71
2011	(33)	2	(2)	(1)	(1)	3.0%	(34)
2012	39	(2)	141	(170)	(31)	(79.5%)	8
2013	7	1	(64)	56	(7)	(100.0%)	-
2014	(60)	6	(15)	73	64	(106.7%)	4
2015	198	(11)	9	(238)	(240)	(121.2%)	(42)
2016	239	(16)	(343)	(102)	(461)	(192.9%)	(222)
2017	796	(50)	364	(386)	(72)	(9.0%)	724
2018	1,779	(101)	(47)	279	131	7.4%	1,910
2019	5,803	(948)	176	639	(133)	(2.3%)	5,670
2020	17,547	(1,427)	(4,480)	(1,965)	(7,872)	(44.9%)	9,675
2021	21,411	(1,992)	449	(306)	(1,849)	(8.6%)	19,562
2022	44,475	10,262	(3,380)	(775)	6,107	13.7%	50,582
Grand Total	**93,110**	**5,665**	**(7,134)**	**(3,443)**	**(4,912)**	**(5.3%)**	**88,198**

EXHIBIT G

Components of IBNR (i.e. "Undiscounted") Change

(September 2022 to October 2022)

RSP **Alberta Non-Grid**
AccountCode Desc **IBNR - Undiscounted**

IBNR - in $000s

AccYear	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation	Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
prior	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	36	(2)	2	-	-	-	36
2005	5	-	-	-	-	-	5
2006	76	(5)	5	-	-	-	76
2007	65	(4)	4	-	-	-	65
2008	70	(5)	5	-	-	-	70
2009	546	(32)	32	(574)	(574)	(105.1%)	(28)
2010	(44)	2	(2)	73	73	(165.9%)	29
2011	(34)	2	(2)	-	-	-	(34)
2012	(2)	(1)	146	(154)	(9)	450.0%	(11)
2013	(9)	1	(64)	81	18	(200.0%)	9
2014	(53)	4	(14)	84	74	(139.6%)	21
2015	297	(18)	16	(179)	(181)	(60.9%)	116
2016	189	(13)	(343)	(90)	(446)	(236.0%)	(257)
2017	672	(44)	366	(288)	34	5.1%	706
2018	1,327	(77)	(39)	421	305	23.0%	1,632
2019	4,945	(905)	190	817	102	2.1%	5,047
2020	15,630	(1,346)	(4,312)	(1,622)	(7,280)	(46.6%)	8,350
2021	19,256	(1,865)	434	140	(1,291)	(6.7%)	17,965
2022	42,068	9,658	(3,207)	-	6,451	15.3%	48,519
Grand Total	**85,040**	**5,350**	**(6,783)**	**(1,291)**	**(2,724)**	**(3.2%)**	**82,316**