ALBERTA NON-GRID RISK SHARING POOL

OCTOBER 2021 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

Related Bulletin: F2021-090_AB_RSP_October_2021_Operational_Report

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FACILITY ASSOCIATION

ACTUARIAL HIGHLIGHTS

RSP ALBERTA NON-GRID

OPERATIONAL REPORT

OCTOBER 2021

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1 Summary

Recorded activities since last valuation implementation were significantly lower than projected, primarily driven by the activity in the month of October; this activity was reviewed and attributed to the reserving methodology change of one member company group.

1.1 Valuation Schedule (Fiscal Year 2021)

The October 2021 Operational Report incorporates the results of an updated valuation (as at September 31, 2021) – 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 2021 – SCHEDULE OF VALUATIONS

Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep 30, 2020 (completed)	0.22% mfad[1] 25 bp	Oct. 2020	update valuation (roll-forward): accident year 2020 loss ratio decreased 1.7 points to 98.1%; discount rate decreased 4 basis points; no change to selected margins for adverse deviations
Dec. 31, 2020 (completed)	0.25% mfad 25 bp	Mar. 2021	update valuation:): accident year 2020 loss ratio decreased 2.6 points to 95.5% and accident year 2021 loss ratio decreased 8.2 points to 89.3%; discount rate increased 3 basis points; no change to selected margins for adverse deviations
Mar. 31, 2021 (completed)	0.73% mfad 25 bp	May. 2021	update valuation (roll-forward): accident year 2021 loss ratio decreased 1.2 points to 88.1%; discount rate increased 48 basis points; no change to selected margins for adverse deviations
Jun. 30, 2021 (completed)	0.73% mfad 25 bp	Aug. 2021	update valuation: accident year 2021 loss ratio decreased 6.5 points to 81.6%; no change to discount rate; selected margins for adverse deviation were updated
Sep. 30, 2021	0.81% mfad 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

Under the proposed schedule for fiscal year 2021, the off-half valuation quarters ending

[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%.

March 31, 2021 and September 30, 2021 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, 2021 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 (2021), and "Prem Def" refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact ($000s) of Implementing Result of Valuation as at Sep. 31, 2021[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	409	39	448	(305)	-	143
CAY	(801)	(119)	(920)	(136)	-	(1,056)
Prem Def	(173)	45	(128)	(144)	-	(272)
TOTAL	(565)	(35)	(600)	(585)	-	(1,185)

As indicated in the preceding table, the incorporation of the new valuation had an estimated ***$1.2 million favourable impact*** on the month's net result from operations, subtracting an estimated 1.0 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **101.8%**.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Sep. 31, 2021

AB Non-Grid	ytd EP 113,062 (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	0.4%	-	0.4%	(0.3%)	-	0.1%
CAY	(0.7%)	(0.1%)	(0.8%)	(0.1%)	-	(0.9%)
Prem Def	(0.2%)	-	(0.1%)	(0.1%)	-	(0.2%)
TOTAL	(0.5%)	-	(0.5%)	(0.5%)	-	(1.0%)

The impact of the **nominal changes** is shown in column [1] of the two preceding summary tables.

[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.

The change in the selected nominal ultimates was **favourable by $0.6 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).

The **PAYs** overall showed a **$0.4 million unfavourable** nominal variance or 0.3% of the PAYs nominal unpaid balance of $138.5 million determined at the end of last month (September 2021), relatively unchanged since the prior valuation.

The CAY and premium deficiency impacts are a result of the change in the selected loss ratio for accident year **2021** (decreased 0.7 points to 80.9%). This change is due to lower than expected claims costs on physical damage coverages year to date, particularly for the most recent quarter.

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 ~$0.1 million 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 selected risk-free yield curve, derived from Government of Canada benchmark bond yields monthly series using values for June 2021. Column [4] accounts for the change in the **discount rate** selected (Increased 8 basis points to **0.81%**), indicating a favourable impact of $0.6 million. The impact related only to claims liability (i.e. PAYs plus CAY) was $0.4 million at October 2021 – this compares to the $0.4 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).

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 4, 2021.

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

There have been no changes in these descriptions since last Highlights, other than updated references to reflect the new valuation.

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.

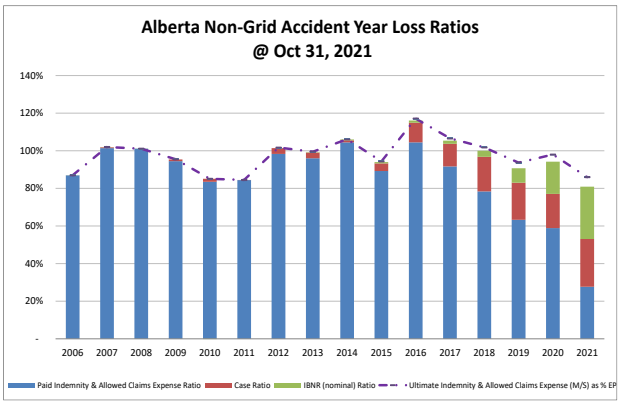
In the **Alberta Treasury Board and Finance Notice 04-2018** (Clarification of Minor Injury Regulation), dated **October 17, 2018**, the Alberta Superintendent of Insurance advised that clarifying amendments have been made to the definition of minor injuries under the Minor Injury Regulation (MIR). Consideration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

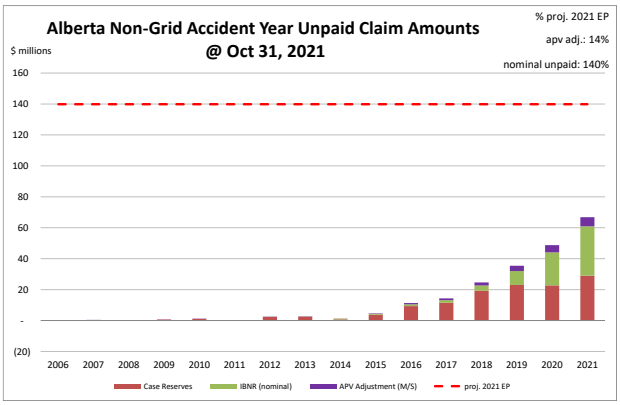
Amendments to the **Alberta Automobile Accident Insurance Benefits Regulation, Diagnostic and Treatment Protocols Regulation, and Minor Injury Regulation** came into force effective November 1, 2020, amending definitions and various benefit maximums defined in these regulations. **Alberta Bill 41** (Insurance (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 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.

1.5 Current Provision Summary

The following charts show the current levels of claim liabilities[3] 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 2021 full year earned premium (the red hash-mark line) to provide some perspective.

[3]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.





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

The current actuarial present value adjustments balance ($19.0 million – see the following table) represents 14% of the earned premium projected for the full year 2021 (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 to the left breaks down the Member Statement (M/S) claim liabilities total into component parts, showing that the majority of the claim liabilities for this RSP is in case reserves. Approximately 76% of the IBNR balance relates to accident years 2020 and 2021 (see Exhibit B). Approximately 88% of the M/S total claim liabilities are related to accident years 2017-2021 inclusive (i.e. the most recent 5 accident years), and approximately 1% is related to accident years 2011 and prior (i.e. prior to the most recent 10 accident years).

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

claim liabilities ($000s)

	amt	%
case	126,616	58.8%
ibnr	69,779	32.4%
M/S apv adjust.	18,977	8.8%
M/S total	215,372	100.0%

premium liabilities ($000s)

	amt	%
unearned prem	88,168	98.4%
prem def/(dpac)	(5,308)	(5.9%)
M/S apv adjust.	6,720	7.5%
M/S total	89,580	100.0%

policy liabilities ($000s)

	amt	%
claim	196,395	64.4%
premium	82,860	27.2%
M/S apv adjust.	25,697	8.4%
M/S total	304,952	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	2021	September	(46)	(46)	3,364	361	1,641	515
		October	(28)	(28)	3,416	26	1,723	727
PAY Total			**(74)**	**(74)**	**6,780**	**387**	**3,364**	**1,242**
CAY	2021	September	12,647	460	5,318	2,381	7,937	1,754
		October	13,202	177	3,802	813	6,606	1,164
CAY Total			**25,849**	**637**	**9,120**	**3,194**	**14,543**	**2,918**
Grand Total			**25,775**	**563**	**15,900**	**3,581**	**17,907**	**4,160**

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

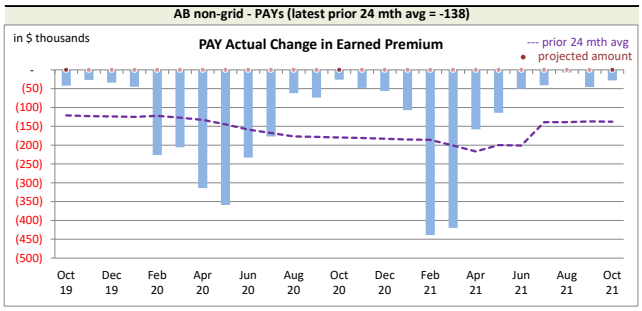
Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of 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.

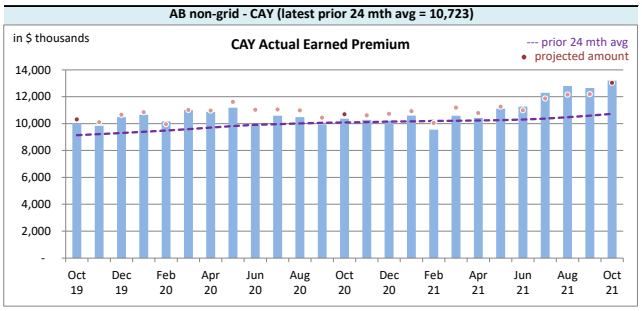
More detailed analysis and commentary on actual vs. projected for the most recent reporting months is provided below.

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

The following charts show actual **earned premium**[4] 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 **Earned Premium** by Calendar Month*





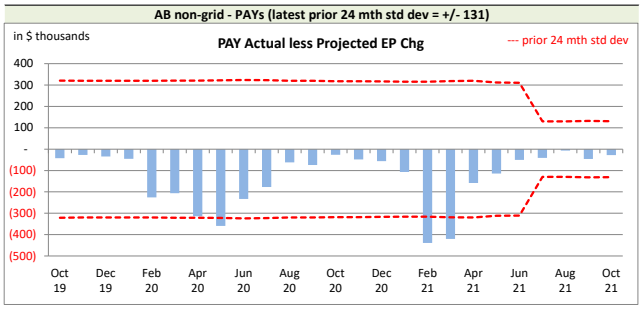
Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels, although relatively high levels generally occur at the beginning of each year.

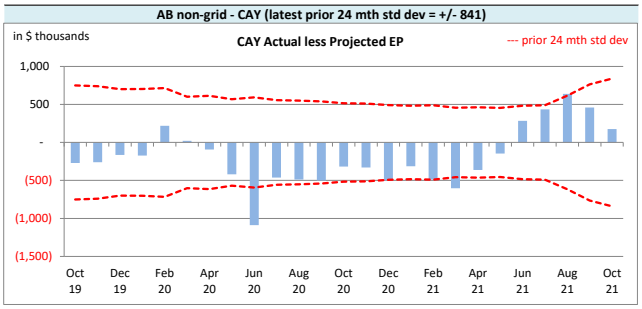
[4]Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(138)	10,723
std dev	131	841
A-P <> std dev	3	4
% <> std dev	12.0%	16.0%
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[5], 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[6], with actuals being generally lower than projected, and while we modified our 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.

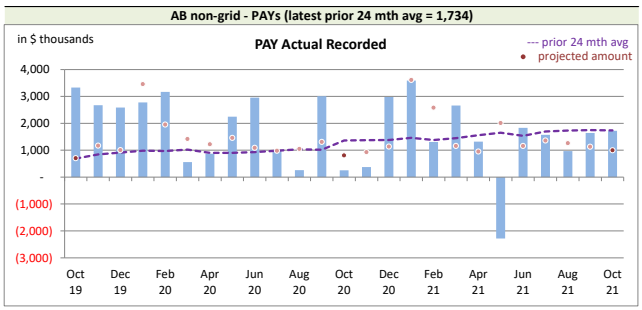
2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

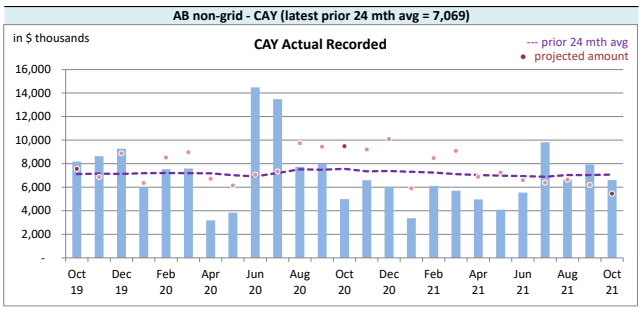
The following charts show actual **recorded** activity (**paid** and case reserve changes), in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

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

[6]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 October 2021 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.

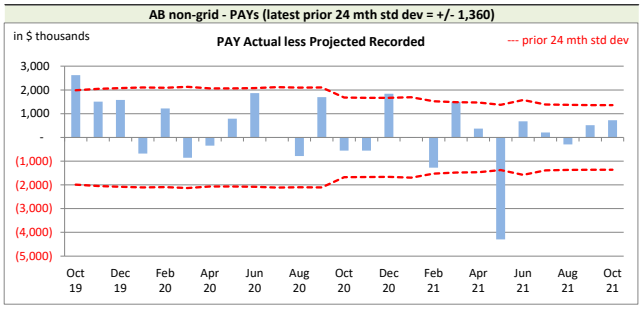
*Alberta non-Grid RSP Actual **Recorded** by Calendar Month*

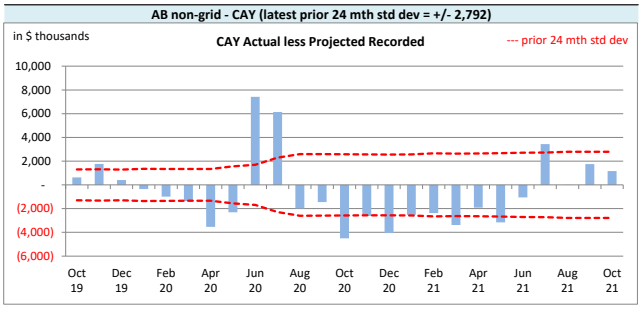




Recorded activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

*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)	1,734	7,069
std dev	1,360	2,792
A-P <> std dev	4	12
% <> std dev	16.0%	48.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	worse

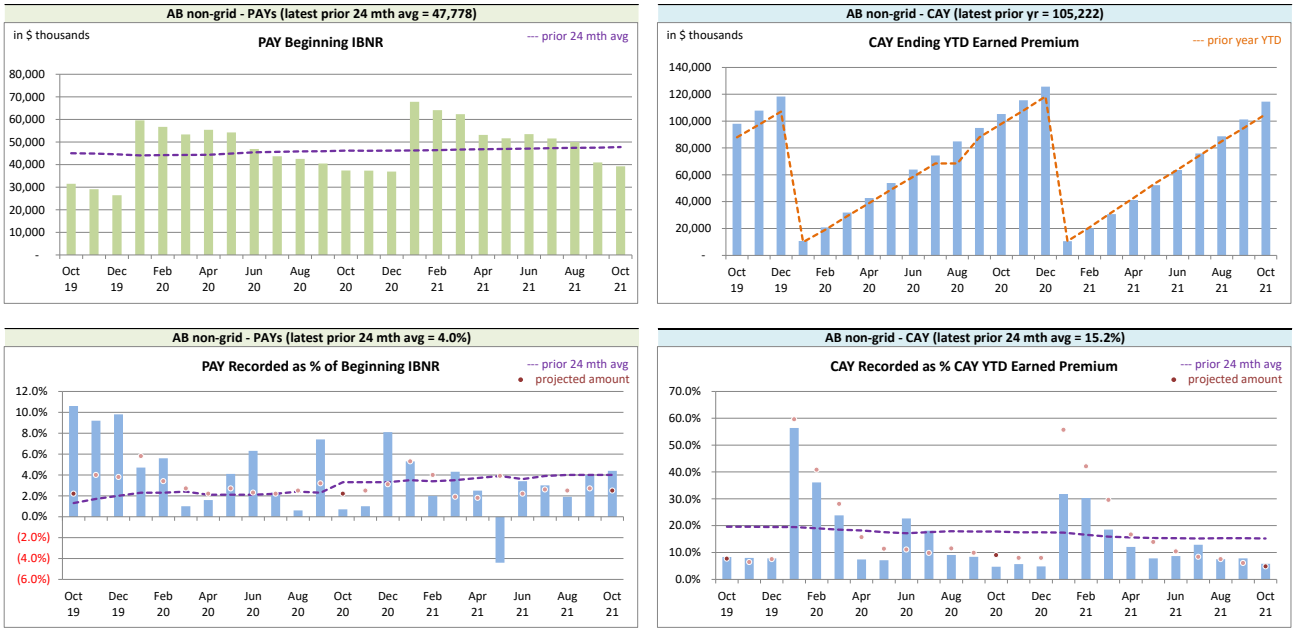
With respect to **recorded** indemnity & allowed claims expense activity, 16% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see table on left), suggesting the projection process has performed 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 (15 of 25 variances are positive).

The current accident year (CAY) **recorded** variances fell outside of one standard deviation 48% 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 (9 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[7] ***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:

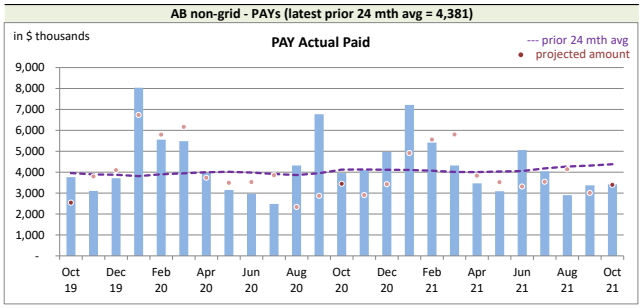
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY(occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one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

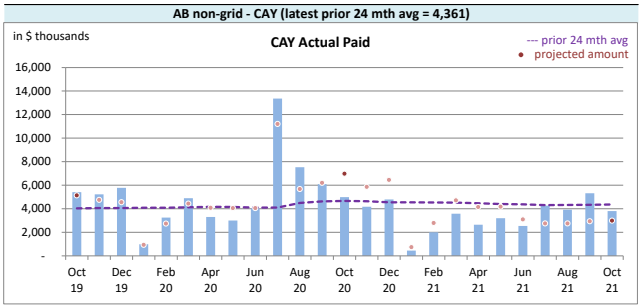
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

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.

[7]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.

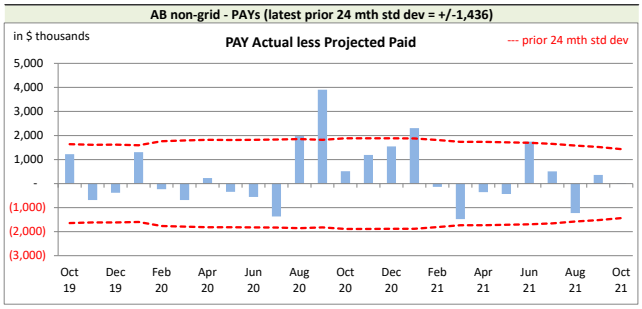
*Alberta non-Grid RSP Actual **Paid** activity by Calendar Month*

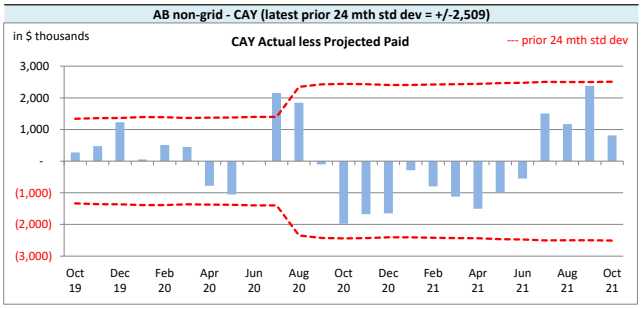




Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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





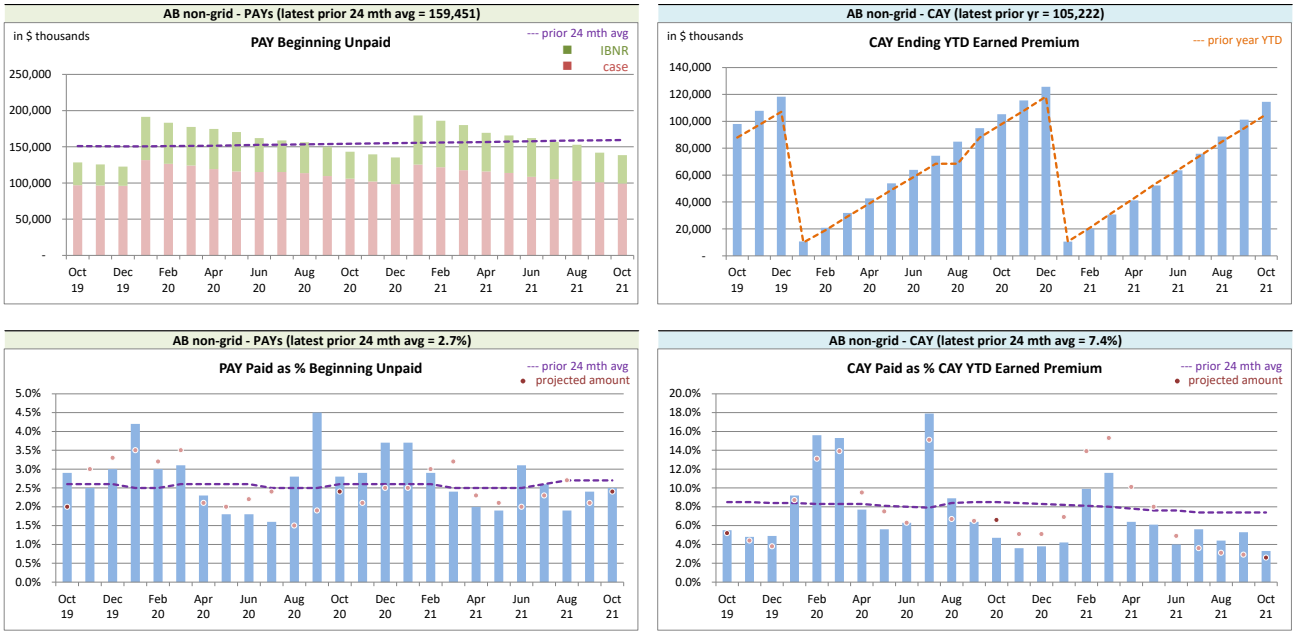
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	4,381	4,361
std dev	1,436	2,509
A-P <> std dev	4	1
% <> std dev	16.0%	4.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 16% 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 (13 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 4% 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 (12 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[8] ***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[9], 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 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

[8]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.

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

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[10] 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[11], 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 81.9% rather than 80.9% (the valuation ultimate ratio for accident year 2021), 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.)

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	(15,526)	(13.7%)	(8,964)	(7.9%)	(24,490)	(21.7%)	(206)	2.6%
CAY	92,608	81.9%	5,889	5.2%	98,497	87.1%	10,410	(1.1%)
TOTAL	77,082	68.2%	(3,075)	(2.7%)	74,007	65.5%	10,204	1.6%

("% EP" based on 2021 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

[10]"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).

[11]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.

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 0.81%

interest rate margin 25 basis pts

Accident Year	Actual Sep. 2021	Actual Oct. 2021	Projected Nov. 2021	Projected Dec. 2021	Projected Jan. 2022	Projected Feb. 2022	Projected Mar. 2022	Projected Dec. 2022
	Amounts in $000s							
2005	13	13	13	12	12	12	12	10
2006	83	83	78	76	74	73	70	53
2007	100	100	94	91	88	86	84	65
2008	71	71	67	65	63	62	61	46
2009	193	35	34	33	40	37	36	26
2010	(481)	22	23	22	23	20	19	14
2011	(36)	49	47	44	44	44	43	33
2012	150	229	222	212	214	205	198	150
2013	(173)	382	366	352	342	332	322	247
2014	672	568	540	522	511	502	489	377
2015	1,059	948	905	872	867	847	822	632
2016	2,414	1,942	1,855	1,788	1,766	1,722	1,675	1,284
2017	3,165	2,790	2,681	2,590	2,486	2,429	2,361	1,813
2018	5,844	5,295	5,063	4,865	4,731	4,583	4,446	3,369
2019	13,078	12,436	12,145	11,495	11,067	10,721	10,437	7,479
2020	26,754	26,014	25,582	24,706	24,282	23,434	22,472	15,588
2021	33,934	37,737	40,918	44,085	41,410	40,027	39,361	33,420
TOTAL	86,882	88,756	90,673	91,869	95,961	98,431	100,890	93,329
Change		1,874	1,917	1,196	4,092	2,470	2,459	

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

EXHIBIT B

IBNR

TABLE EXHIBIT B

IBNR

Amounts in $000s

Ultimate Loss Ratio	Accident Year	Actual Sep. 2021	Actual Oct. 2021	Projected Nov. 2021	Projected Dec. 2021	Projected Jan. 2022	Projected Feb. 2022	Projected Mar. 2022	Projected Dec. 2022
97.4%	2005	5	5	5	5	5	5	5	5
87.0%	2006	75	75	71	69	67	66	64	48
101.9%	2007	64	64	60	58	56	55	54	42
101.1%	2008	68	68	64	62	60	59	58	44
95.4%	2009	121	(22)	(21)	(20)	(19)	(19)	(19)	(15)
85.0%	2010	(534)	(73)	(69)	(67)	(65)	(64)	(62)	(47)
84.5%	2011	(39)	39	37	36	35	35	34	27
101.4%	2012	(52)	25	24	23	22	22	21	16
99.2%	2013	(377)	153	145	141	137	136	133	104
106.0%	2014	554	460	435	422	411	407	397	307
94.0%	2015	661	596	563	546	531	526	513	398
116.2%	2016	1,459	1,101	1,040	1,009	982	972	949	735
105.4%	2017	1,962	1,681	1,589	1,541	1,499	1,484	1,448	1,122
100.0%	2018	3,845	3,384	3,198	3,064	2,960	2,842	2,757	2,011
90.7%	2019	9,492	8,991	8,793	8,230	7,843	7,529	7,303	4,914
94.3%	2020	21,931	21,348	20,985	20,188	19,744	18,954	18,082	11,937
80.9%	2021	28,483	31,848	34,247	36,572	34,378	33,347	33,014	28,254
	TOTAL	67,754	69,779	71,200	71,912	75,285	77,393	79,537	67,491
	Change		2,025	1,421	712	3,373	2,108	2,144	

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. 2021	Actual Oct. 2021	Projected Nov. 2021	Projected Dec. 2021	Projected Jan. 2022	Projected Feb. 2022	Projected Mar. 2022	Projected Dec. 2022
(1) unearned premium (UP)	85,954	88,168	90,890	90,168	90,306	91,158	95,794	109,140
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	99.6%	101.6%	104.1%	106.9%	106.9%	107.0%	107.2%	111.7%
(3) expected future costs {(1) x (2)}	85,633	89,580	94,637	96,418	96,576	97,564	102,718	121,878
(4) premium deficiency / (deferred policy acquisition cost)	(321)	1,412	3,747	6,250	6,270	6,406	6,924	12,738
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	92.1%	94.0%	96.3%	98.9%	98.9%	99.0%	99.2%	103.3%
(6) expected future costs {(1) x (5)}	79,135	82,860	87,538	89,185	89,330	90,245	95,010	112,731
(7) premium deficiency / (deferred policy acquisition cost)	(6,819)	(5,308)	(3,352)	(983)	(976)	(913)	(784)	3,591

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2021, broken down by component.

Alberta non-Grid	Projected Balances as at Dec. 31, 2021 ($000s)									
ending 2021	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
2005	70	5	75	-	-	7	-	7	7	82
2006	2	69	71	-	-	7	-	7	7	78
2007	281	58	339	(2)	1	34	-	34	33	372
2008	(31)	62	31	-	-	3	-	3	3	34
2009	617	(20)	597	(8)	2	60	(1)	59	53	650
2010	1,053	(67)	986	(13)	4	99	(1)	98	89	1,075
2011	67	36	103	(2)	-	10	-	10	8	111
2012	2,186	23	2,209	(40)	12	221	(4)	217	189	2,398
2013	2,282	141	2,423	(39)	12	242	(4)	238	211	2,634
2014	744	422	1,166	(21)	6	117	(2)	115	100	1,266
2015	3,431	546	3,977	(90)	27	398	(9)	389	326	4,303
2016	8,700	1,009	9,709	(241)	73	971	(24)	947	779	10,488
2017	10,933	1,541	12,474	(249)	76	1,247	(25)	1,222	1,049	13,523
2018	18,357	3,064	21,421	(427)	129	2,142	(43)	2,099	1,801	23,222
2019	22,091	8,230	30,321	(602)	183	3,759	(75)	3,684	3,265	33,586
2020	22,508	20,188	42,696	(946)	287	5,294	(117)	5,177	4,518	47,214
PAYs (sub-total):	93,315	35,340	128,655	(2,680)	812	14,617	(305)	14,312	12,444	141,099
CAY (2021)	41,145	36,572	77,717	(1,585)	481	8,796	(179)	8,617	7,513	85,230
claims liabilities:	134,460	71,912	206,372	(4,265)	1,293	23,413	(484)	22,929	19,957	226,329

	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	90,168	(983)	89,185	(1,448)	439	8,379	(137)	8,242	7,233	96,418

*Total may not be sum of parts, as apvs apply to future costs within UPR

policy liabilities:			**295,557**	**(5,713)**	**1,732**	**31,792**	**(621)**	**31,171**	**27,190**	**322,747**

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, 2021 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
2004	10.0%	10.0%	10.0%	10.0%
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%	10.0%	10.0%
2017	10.0%	10.0%	10.0%	10.0%
2018	10.0%	10.0%	10.0%	10.0%
2019	12.5%	10.0%	12.5%	12.5%
2020	12.5%	10.0%	12.5%	12.4%
2021	12.2%	10.0%	7.2%	11.8%
2022	11.9%	10.0%	5.2%	10.8%
prem liab	11.9%	10.0%	5.2%	10.8%

discount rate:	0.81%
margin (basis points):	25

*prem liabilities as at 2021m09

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2021 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2021, and are based on more up-to-date information). We have included the most recent valuation selection (0.81%), the prior valuation assumption (0.73%) 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, 2021 projected Unpaid							
AY	0.00%	0.31%	0.81%	1.31%	1.81%	2.31%	0.73%	0.22%
& prior	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	0	0	0	0	0	0	0	0
	280	280	279	278	277	276	279	280
	-	-	-	-	-	-	-	-
	657	656	651	646	641	636	651	656
	1,053	1,052	1,043	1,035	1,026	1,018	1,044	1,053
	75	74	74	73	72	72	74	75
	2,288	2,284	2,258	2,233	2,208	2,184	2,262	2,287
	2,752	2,748	2,720	2,693	2,667	2,641	2,724	2,751
	1,340	1,337	1,322	1,307	1,293	1,279	1,324	1,339
	4,635	4,624	4,559	4,495	4,434	4,373	4,569	4,632
	10,572	10,545	10,382	10,224	10,071	9,921	10,408	10,566
	13,762	13,734	13,563	13,398	13,237	13,081	13,590	13,755
	21,951	21,905	21,634	21,371	21,116	20,868	21,677	21,940
	33,864	33,790	33,374	32,969	32,576	32,195	33,439	33,844
	46,983	46,869	46,223	45,597	44,990	44,399	46,325	46,952
	73,348	73,182	72,246	71,338	70,459	69,605	72,394	73,302
	-	-	-	-	-	-	-	-
Total	213,561	213,079	210,328	207,658	205,065	202,547	210,762	213,432
	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	0.00%	0.31%	0.81%	1.31%	1.81%	2.31%	0.73%	0.22%
Total	3,233	2,751	-	(2,670)	(5,262)	(7,780)	435	3,104
	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	0.00%	0.31%	0.81%	1.31%	1.81%	2.31%	0.73%	0.22%
0 & prior	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0.1%	0.1%	0.0%	-0.1%	-0.3%	-0.4%	0.0%	0.1%
0	0.4%	0.4%	0.0%	-0.4%	-0.7%	-1.1%	0.1%	0.4%
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0.9%	0.8%	0.0%	-0.8%	-1.5%	-2.3%	0.1%	0.9%
0	1.0%	0.8%	0.0%	-0.8%	-1.6%	-2.4%	0.1%	0.9%
0	1.1%	0.9%	0.0%	-0.9%	-1.8%	-2.7%	0.2%	1.1%
0	1.3%	1.1%	0.0%	-1.1%	-2.2%	-3.3%	0.2%	1.3%
0	1.2%	1.0%	0.0%	-1.0%	-2.0%	-2.9%	0.2%	1.1%
0	1.3%	1.1%	0.0%	-1.1%	-2.2%	-3.3%	0.2%	1.3%
0	1.7%	1.4%	0.0%	-1.4%	-2.7%	-4.1%	0.2%	1.6%
0	1.8%	1.6%	0.0%	-1.5%	-3.0%	-4.4%	0.2%	1.8%
0	1.5%	1.3%	0.0%	-1.2%	-2.4%	-3.6%	0.2%	1.4%
0	1.5%	1.3%	0.0%	-1.2%	-2.4%	-3.5%	0.2%	1.4%
0	1.5%	1.2%	0.0%	-1.2%	-2.4%	-3.5%	0.2%	1.4%
0	1.6%	1.4%	0.0%	-1.4%	-2.7%	-3.9%	0.2%	1.6%
0	1.5%	1.3%	0.0%	-1.3%	-2.5%	-3.7%	0.2%	1.5%
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	1.5%	1.3%	0.0%	-1.3%	-2.5%	-3.7%	0.2%	1.5%
	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 2021 to October 2021)

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	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	42	(2)	2	-	-	-	42
2005	13	-	-	-	-	-	13
2006	83	(6)	6	-	-	-	83
2007	100	(6)	6	-	-	-	100
2008	71	(3)	3	-	-	-	71
2009	139	(9)	63	(158)	(104)	(74.8%)	35
2010	78	4	(617)	557	(56)	(71.8%)	22
2011	(36)	2	(2)	85	85	(236.1%)	49
2012	171	(12)	(10)	80	58	33.9%	229
2013	133	(2)	(364)	615	249	187.2%	382
2014	659	(36)	38	(93)	(91)	(13.8%)	568
2015	1,039	(57)	268	(302)	(91)	(8.8%)	948
2016	2,108	(125)	377	(418)	(166)	(7.9%)	1,942
2017	3,423	(184)	(315)	(134)	(633)	(18.5%)	2,790
2018	5,772	(336)	(92)	(49)	(477)	(8.3%)	5,295
2019	13,980	(1,146)	(324)	(74)	(1,544)	(11.0%)	12,436
2020	27,188	(819)	(389)	34	(1,174)	(4.3%)	26,014
2021	31,054	10,405	(2,666)	(1,056)	6,683	21.5%	37,737
Grand Total	**86,017**	**7,668**	**(4,016)**	**(913)**	**2,739**	**3.2%**	**88,756**

EXHIBIT G

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

(September 2021 to October 2021)

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	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-
2004	36	(2)	2	-	-	-	36
2005	5	-	-	-	-	-	5
2006	75	(4)	4	-	-	-	75
2007	64	(3)	3	-	-	-	64
2008	68	(3)	3	-	-	-	68
2009	67	(4)	58	(143)	(89)	(132.8%)	(22)
2010	20	9	(613)	511	(93)	(465.0%)	(73)
2011	(39)	2	(2)	78	78	(200.0%)	39
2012	(31)	2	(24)	78	56	(180.6%)	25
2013	(72)	10	(353)	568	225	(312.5%)	153
2014	541	(29)	32	(84)	(81)	(15.0%)	460
2015	633	(35)	267	(269)	(37)	(5.8%)	596
2016	1,126	(67)	401	(359)	(25)	(2.2%)	1,101
2017	2,176	(120)	(279)	(96)	(495)	(22.7%)	1,681
2018	3,701	(229)	(88)	-	(317)	(8.6%)	3,384
2019	10,301	(985)	(325)	-	(1,310)	(12.7%)	8,991
2020	22,287	(664)	(400)	125	(939)	(4.2%)	21,348
2021	26,100	8,947	(2,398)	(801)	5,748	22.0%	31,848
Grand Total	**67,058**	**6,825**	**(3,712)**	**(392)**	**2,721**	**4.1%**	**69,779**