ALBERTA NON-GRID RISK SHARING POOL

OCTOBER 2020 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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FACILITY Association

ACTUARIAL HIGHLIGHTS

RSP ALBERTA NON-GRID

OPERATIONAL REPORT

OCTOBER 2020

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1 Summary

Key Points

(a) The 2020 Q3 valuation was completed and implemented into the results this month, with a $3.5 million favourable impact, or 1.2% of beginning policy liabilities (policy liabilities ended at $281 million) and 3.4 points of year-to-date earned premium; the updated valuation loss ratios include a further assessment of the incurred impacts associated with the COVID-19 pandemic.

1.1 Valuation Schedule (Fiscal Year 2020)

The October 2020 Operational Report corporates the results of an updated valuation (as at September 30, 2020) – 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 2020.

ALBERTA NON-GRID RISK SHARING POOL
FISCAL YEAR 2020 – SCHEDULE OF VALUATIONS

Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep 30, 2019 (completed)	1.46% mfad 25 bp	Oct. 2019	updated valuation (roll forward) : accident year 2019 loss ratio decreased 2.6 points to 102.2%; discount rate increased 3 basis points; no change to selected margins for adverse deviations
Dec. 31, 2019 (completed)	1.64% mfad 25 bp	Mar. 2020	update valuation: 2019 loss ratio decreased 1.3 points to 100.9%; accident year 2020 loss ratio decreased 7.0 points to 99.7%; discount rate increased 18 basis points; no change to selected margins for adverse deviations
Mar. 31, 2020 (completed)	0.63% mfad 25 bp	May. 2020	update valuation (partial roll-forward): accident year 2020 loss ratio decreased 3.6 points to 96.1%; discount rate decreased 101 basis points; no change to selected margins for adverse deviations
Jun. 30, 2020 (completed)	0.26% mfad 25 bp	Aug. 2020	update valuation: accident year 2020 loss ratio increased 3.7 points to 99.8%; discount rate decreased by 37 basis points; selected margins for adverse deviations were updated
Sep 30, 2020 (completed)	0.22% mfad 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

Under the proposed schedule for fiscal year 2020, the off-half valuation quarters ending March 31, 2020 and September 30, 2020 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, 2020 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 (2020), and "Prem Def" refers to premium deficiency / deferred acquisition costs impacts.

Summary of Impact ($000s) of Implementing Result of Valuation as at Sep. 30, 2020[1]

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	193	7	200	16	-	216
CAY	(1,789)	(151)	(1,940)	58	-	(1,882)
Prem Def	(989)	(888)	(1,877)	-	-	(1,877)
TOTAL	(2,585)	(1,032)	(3,617)	74	-	(3,543)

As indicated in the preceding table, the incorporation of the new valuation had an estimated ***$3.5 million favourable impact*** on the month's net result from operations, subtracting an estimated 3.4 points (see following table) to the **year-to-date Combined Operating Ratio** to end at **127.0%**.

Summary of Impact (% YTD EP) of Implementing Result of Valuation as at Sep. 30, 2020

AB Non-Grid	ytd EP 103,501 (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	0.2%	-	0.2%	-	-	0.2%
CAY	(1.7%)	(0.1%)	(1.9%)	0.1%	-	(1.8%)
Prem Def	(1.0%)	(0.9%)	(1.8%)	-	-	(1.8%)
TOTAL	(2.5%)	(1.0%)	(3.5%)	0.1%	-	(3.4%)

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 $2.6 million** overall. This reflects

[1]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 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 **$0.2 million unfavourable** nominal variance or 0.1% of the PAYs nominal unpaid balance of $143.3 million determined at the end of last month (September 2020), driven by unfavourable claims development and updates to a priori loss ratios to include more recent data and updated trends. While the valuation implementation impact does differ from the valuation changes themselves (as they apply to different periods), the valuation result by government line provides insight into the relative PAYs nominal changes. As per the following table, the primary changes were in relation to TPL in multiple PAYs.

Valuation as at Sep. 30, 2020 – PAYs Nominal Changes by Government Line

Alberta Non-Grid RSP - valuation changes in selected ultimate (favourable) / unfavourable **during Quarter**

Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
2015 & Prior	108	4	2	114
2016	545	4	11	560
2017	(269)	(10)	48	(231)
2018	223	(106)	36	153
2019	(608)	(186)	(17)	(811)
TOTAL	**(1)**	**(294)**	**80**	**(215)**

The CAY and premium deficiency impacts are a result of the change in the selected loss ratios for accident year **2020** (decreased 1.7 points to 98.1%) and accident year **2021** (decreased 1.4 points to 97.5 %).

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 $1.0 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 September 2020. Column [4] accounts for the change in the **discount rate** selected (decreased 4 basis points to **0.22%**), indicating an unfavourable impact of $0.1 million. The impact *related only to claims liabilities* (i.e. PAYs plus CAY) was $74 thousand at October 2020 – this compares to the $25 thousand change one

would estimate as the impact by interpolation using the interest rate sensitivity table provided in last month'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

Mr. Cosimo Pantaleo of Ernst & Young LLP (EY) was appointed as Actuary by the FA Board at its February 18, 2020 meeting.

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[2]

There have been no changes in these descriptions since last month's Highlights, other than the updated reference 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 **May 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). With the **most recent** valuation September 30, 2020), consideration of changes in the definition of minor injuries under the MIR, were included with the updated industry trend analysis (completed using industry data as at December 31, 2019).

1.5 Current Provision Summary

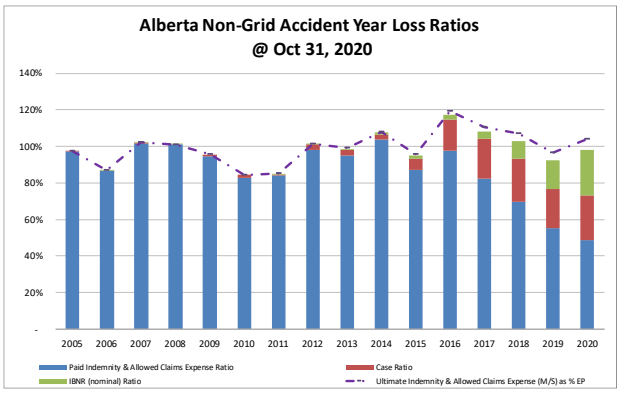
The following charts show the current levels of claim liabilities[3] booked by accident year[4]. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2020 full year

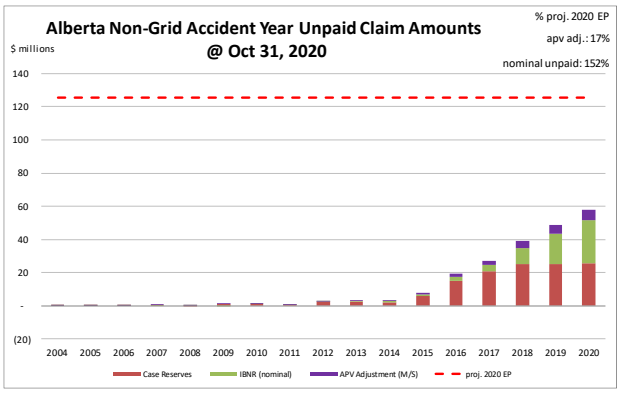
[2]This url to a pdf is to a helpful guide on how bills become laws: https://www.ola.org/sites/default/files/common/how-bills-become-law-en.pdf.

[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.

[4]Accident year 2004 was an incomplete year and therefore has been excluded from the loss ratio chart.

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.

The current actuarial present value adjustments balance ($21.8 million – see the following table) represents 17% of the earned premium projected for the full year 2020 (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.

claim liabilities ($000s)

	amt	%
case	127,549	59.9%
ibnr	63,736	29.9%
M/S apv adjust.	21,776	10.2%
M/S total	213,061	100.0%

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 70% of the IBNR balance relates to accident years 2019 and 2020 (see Exhibit B). Approximately 90% of the M/S total claim liabilities are related to accident years 2016-2020 inclusive (i.e. the most recent 5 accident years), and approximately 1% is related to accident years 2010 and prior (i.e. prior to the most recent 10 accident years).

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

premium liabilities ($000s)

	amt	%
unearned prem	63,363	94.3%
prem def/(dpac)	(1,194)	(1.8%)
M/S apv adjust.	4,990	7.4%
M/S total	67,159	100.0%

policy liabilities ($000s)

	amt	%
claim	191,285	68.3%
premium	62,169	22.2%
M/S apv adjust.	26,766	9.6%
M/S total	280,220	100.0%

2 Activity During the Month of October 2020

2.1 Recorded Premium and Claims Activity

The following table summarizes the extent to which premiums and claims amounts recorded during the month differ from projections reflected in the prior month's Operational Report[5].

[5]There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

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

Table 01	Earned Premium		Paid Indemnity & Allowed Claims Expense		Case increase / (decrease)		Recorded increase / (decrease)	
Accident Year	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	(0)	(0)	1,536	(475)	(1,193)	654	343	179
2018	(9)	(9)	1,074	324	(1,434)	(1,076)	(360)	(752)
2019	(17)	(17)	1,342	661	(1,073)	(642)	269	19
2020	10,370	(317)	4,988	(1,981)	(9)	(2,519)	4,979	(4,500)
TOTAL	10,344	(343)	8,941	(1,470)	(3,710)	(3,584)	5,231	(5,054)

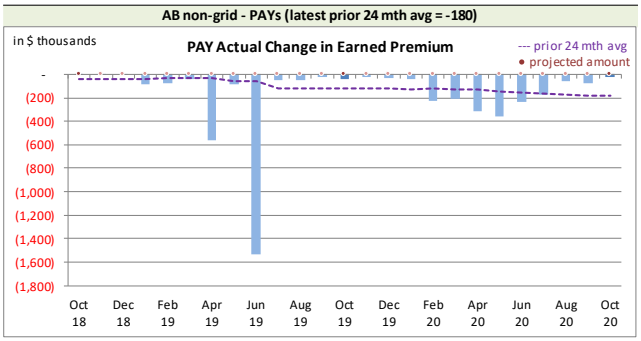
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

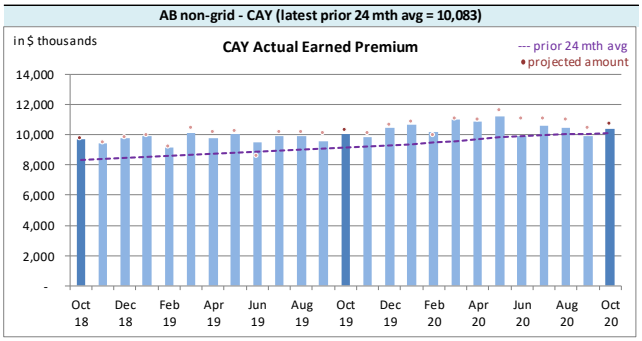
Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of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

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

The following charts show actual **earned premium**[6] 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.

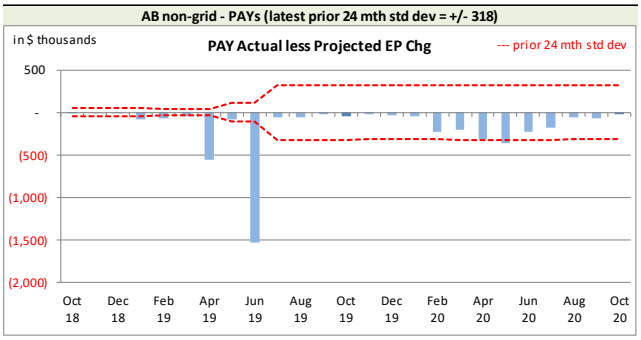
On Latest	$ thousands	
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(180)	10,083
std dev	318	516
A-P <> std dev	6	2
% <> std dev	24.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

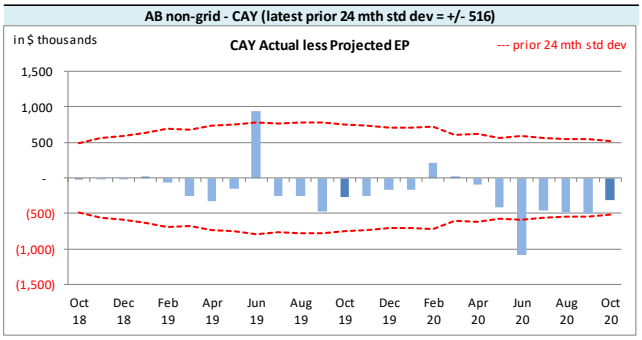
The associated variance between the actual changes and the projections from the previous month are shown in the following charts. **Earned premium** change projections are all attributed to the current accident year as the projection upload does not accept **earned premium** changes for other accident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

[6]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.

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*



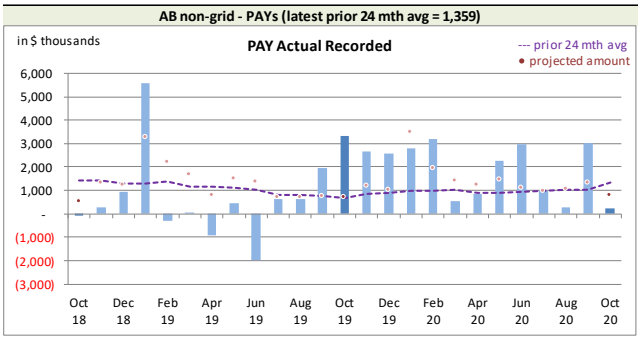


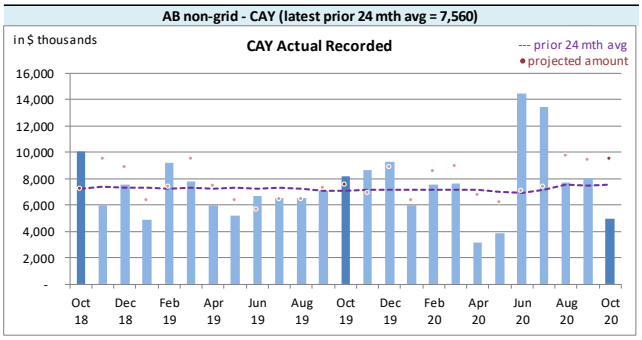
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[7], with actuals generally lower than projected, although the magnitude is not high relative to monthly premium. In addition to the PAYs' bias, the CAY has also shown bias[8], 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.

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



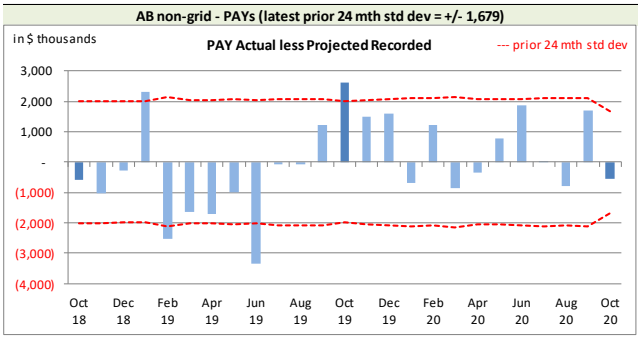


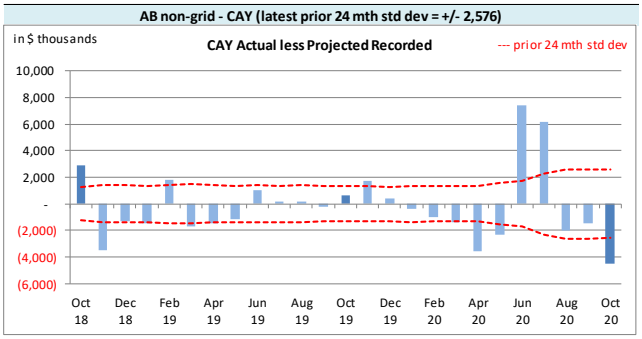
Recorded activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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

[8]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 2020 had only 4 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 vs Projected Summary: ***Recorded*** *Variances by Calendar Month*





On Latest $ thousands		
Recorded	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)	1,359	7,560
std dev	1,679	2,576
A-P <> std dev	4	13
% <> std dev	16.0%	52.0%
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 (10 of 25 variances are positive).

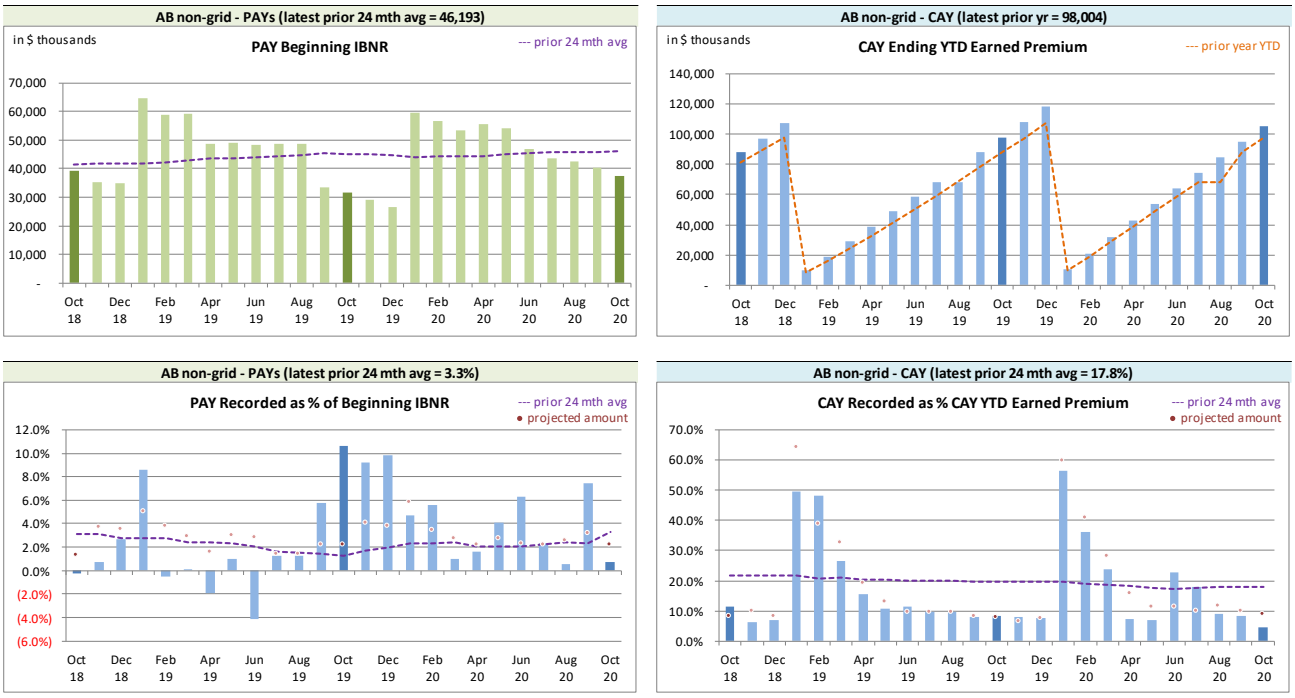
The current accident year (CAY) **recorded** variances fell outside of one standard deviation 52% of the time over the last 25 calendar months (see the preceding table on the left), suggesting that the projection process has performed worse than simply projecting the prior 24-month average amount. Bias has not been indicated at a 95% confidence level on a rolling 25-month basis (10 of 25 variances are positive).

The CAY **recorded** variance was outside of the one standard deviation band this month (see preceding chart on the right). The lower than projected recorded activity was reviewed, and attributed to low levels of reported physical damage claims experience in the month.

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[9] ***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:

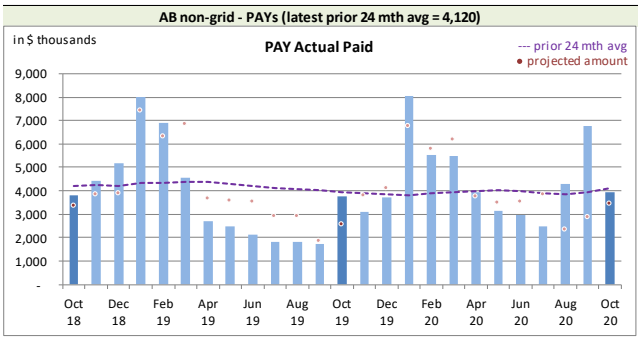
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY(occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one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

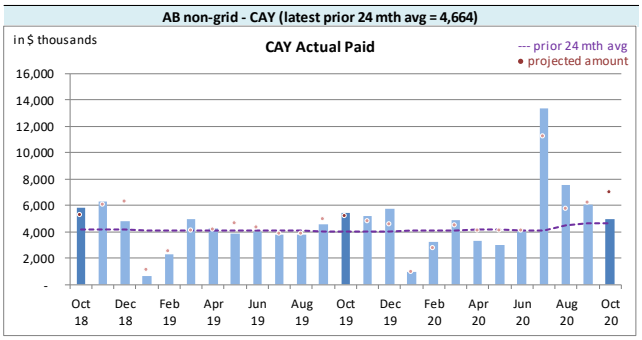
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

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.

[9]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.

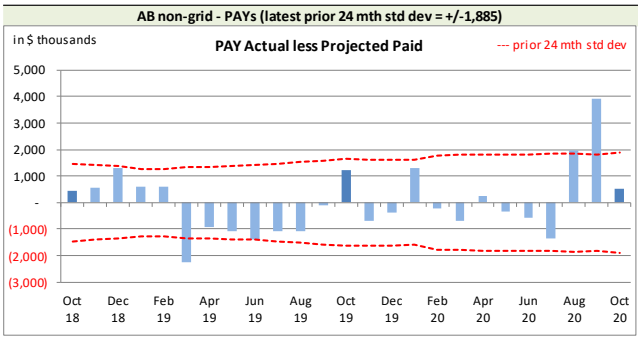
*Alberta non-Grid RSP Actual **Paid** activity by Calendar Month*

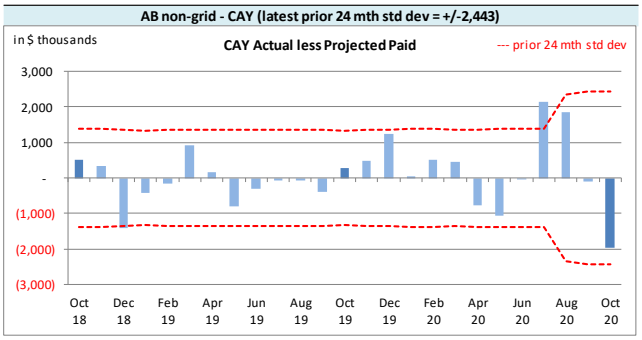




Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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





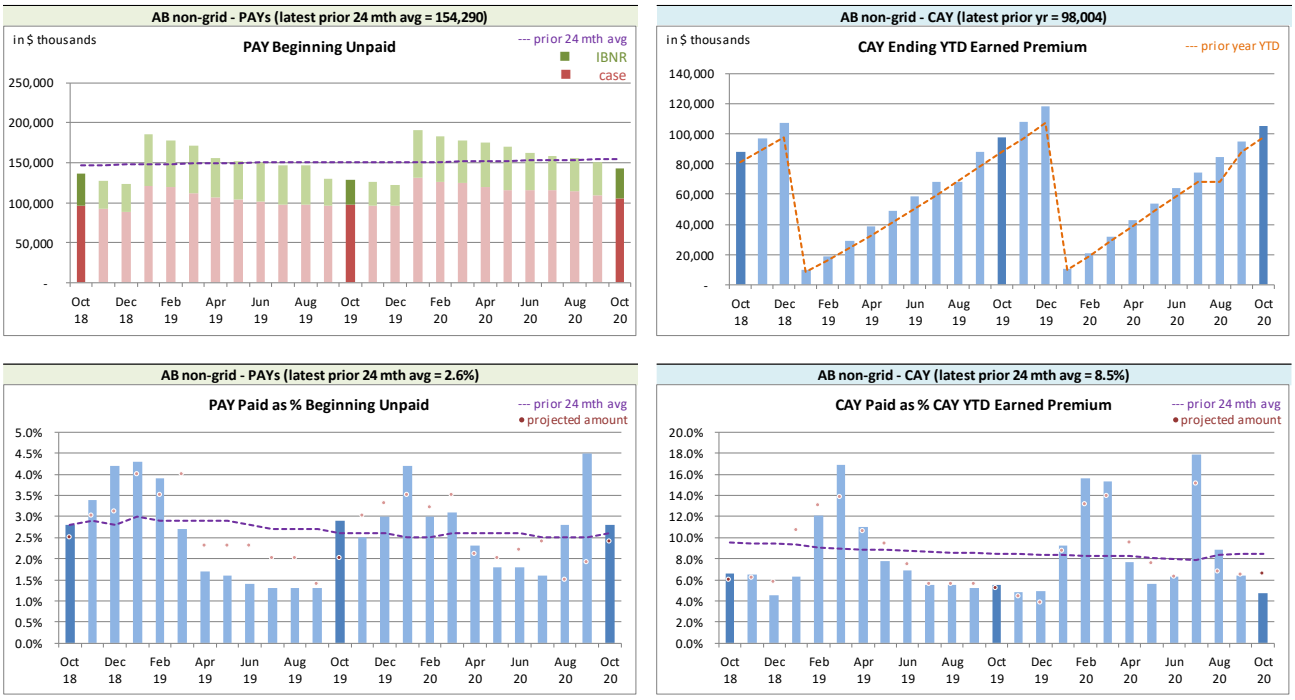
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	4,120	4,664
std dev	1,885	2,443
A-P <> std dev	3	2
% <> std dev	12.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 12% 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 (11 of 25 variances are positive).

The current accident year (CAY) **paid** variances fell outside of one standard deviation 8% 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[10] ***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[11], 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.

The following table summarizes variances in provisions included in this month's Operational Report

[10]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.

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

and the associated one-month projections from last month's Report.

Alberta Non-Grid RSP Actual vs Projected Summary: IBNR and APV Amounts ($ thousands)

Table 02

	IBNR		actuarial present value adjustments: Discount Amount		actuarial present value adjustments: Provisions for Adverse Deviations		IBNR + actuarial present value adjustments	
Accident Year	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	8,528	(180)	(413)	(1)	6,430	49	14,545	(132)
2018	9,691	743	(242)	3	4,539	(44)	13,988	702
2019	18,914	(35)	(308)	5	5,774	(90)	24,380	(120)
2020	28,199	4,184	(375)	(12)	6,441	199	34,265	4,371
TOTAL	65,332	4,712	(1,338)	(5)	23,184	114	87,178	4,821

The IBNR provision is $4.7 million higher than projected from last month, counterbalancing the recorded claims activity and adjusting for the earned premium variance impacts indicated in section 2.1, and due to the valuation implementation.

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)

The variances associated with (ii) above are discussed in sections 2.1.a and 2.1.b.

The following table summarizes the variances in the provisions for premium deficiency liability / (deferred policy acquisition cost asset) included in this month's Operational Report and the one-month projections from last month's Report. This RSP is in a premium deficiency position (shown as a negative amount) prior to and after actuarial present value adjustments. Actuarial present value adjustments increase the liability value as the adjustments increase the expected future policy obligations (costs) associated with the unearned premium. The variances noted are mainly driven by the unearned premium variance, and the valuation implementation.

Alberta Non-Grid RSP Actual vs Projected Summary: Premium Deficiency / (DPAC) Amounts ($ thousands)

Table 03

	Premium Deficiency / (Deferred Policy Acquisition Costs)		actuarial present value adjustments		Premium Deficiency / (DPAC) including actuarial present value adjustments	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
balance:	(205)	24	5,878	(153)	5,673	(129)
balance as % unearned premium:	(0.3%)	0.1%	9.3%	-	9.0%	0.1%
actual unearned premium:	63,363					
less projected:	(1,658)					

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[12] 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[13], 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 99.7% rather than 98.1% (the valuation ultimate ratio for accident year 2020), 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	(5,152)	(5.0%)	496	0.5%	(4,656)	(4.5%)	(264)	0.2%
CAY	103,223	99.7%	5,973	5.8%	109,196	105.5%	9,074	(2.0%)
TOTAL	98,071	94.8%	6,469	6.3%	104,540	101.0%	8,810	(1.8%)

("% EP" based on 2020 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 to the 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 to the valuation implementation.

[12]"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).

[13]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.

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

Amounts in $000s

IBNR + M/S actuarial present value adjustments

Accident Year	Actual Sep. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
2004	42	42	40	39	30
2005	13	13	13	12	10
2006	83	83	78	76	55
2007	96	96	92	89	64
2008	69	69	66	64	48
2009	65	64	62	60	39
2010	126	125	120	116	83
2011	(158)	171	163	157	114
2012	358	352	338	326	230
2013	904	798	764	739	539
2014	1,144	1,297	1,237	1,197	887
2015	1,905	1,907	1,824	1,763	1,295
2016	3,338	4,113	3,963	3,797	2,768
2017	7,055	6,056	5,830	5,657	3,419
2018	13,771	14,347	14,043	13,657	8,198
2019	24,834	23,596	23,243	22,633	15,444
2020	28,288	32,383	34,110	35,822	27,743
TOTAL	81,933	85,512	85,986	86,204	115,092
Change		3,579	474	218	

discount rate
0.22%

interest rate margin
25 basis pts

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. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
349.1%	2004	36	36	34	33	26
97.4%	2005	5	5	5	5	5
87.0%	2006	75	75	71	69	50
101.9%	2007	60	60	57	55	41
101.1%	2008	66	66	63	61	46
95.6%	2009	(21)	(22)	(21)	(20)	(16)
84.3%	2010	19	17	16	16	14
84.9%	2011	(212)	96	91	88	66
101.2%	2012	110	96	91	88	66
98.7%	2013	585	489	465	451	340
107.7%	2014	778	979	930	902	682
94.8%	2015	1,224	1,227	1,166	1,131	857
117.2%	2016	1,596	2,367	2,249	2,150	1,628
107.9%	2017	4,551	3,616	3,435	3,311	1,645
102.8%	2018	9,340	10,007	9,807	9,523	4,867
92.1%	2019	19,199	18,212	17,939	17,419	11,277
98.1%	2020	22,828	26,410	27,611	28,758	22,605
	TOTAL	60,239	63,736	64,009	64,040	87,745
	Change		3,497	273	31	

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. 2020	Actual Oct. 2020	Projected Nov. 2020	Projected Dec. 2020	Projected Dec. 2021
(1) unearned premium (UP)	62,387	63,363	73,674	79,881	78,133
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	109.1%	106.0%	105.9%	105.7%	108.5%
(3) expected future costs {(1) x (2)}	68,051	67,159	77,984	84,464	84,750
(4) premium deficiency / (deferred policy acquisition cost)	5,664	3,796	4,310	4,583	6,617
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	99.8%	98.1%	98.0%	97.9%	100.4%
(6) expected future costs {(1) x (5)}	62,257	62,169	72,189	78,187	78,453
(7) premium deficiency / (deferred policy acquisition cost)	(130)	(1,194)	(1,485)	(1,694)	320

EXHIBIT D

Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2020, broken down by component.

Alberta non-Grid	Projected Balances as at Dec. 31, 2020 ($000s)									
ending 2020	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
2004	25	33	58	-	-	6	-	6	6	64
2005	69	5	74	-	-	7	-	7	7	81
2006	2	69	71	-	-	7	-	7	7	78
2007	282	55	337	(1)	1	34	-	34	34	371
2008	(32)	61	29	-	-	3	-	3	3	32
2009	816	(20)	796	(3)	3	80	-	80	80	876
2010	984	16	1,000	(4)	4	100	-	100	100	1,100
2011	607	88	695	(4)	4	69	-	69	69	764
2012	2,298	88	2,386	(12)	12	239	(1)	238	238	2,624
2013	2,442	451	2,893	(14)	14	289	(1)	288	288	3,181
2014	2,067	902	2,969	(18)	18	297	(2)	295	295	3,264
2015	5,298	1,131	6,429	(45)	45	636	(4)	632	632	7,061
2016	14,418	2,150	16,568	(99)	99	1,657	(10)	1,647	1,647	18,215
2017	20,293	3,311	23,604	(142)	142	2,360	(14)	2,346	2,346	25,950
2018	23,753	9,523	33,276	(200)	200	4,159	(25)	4,134	4,134	37,410
2019	24,543	17,419	41,962	(252)	252	5,245	(31)	5,214	5,214	47,176
PAYs (sub-total):	97,865	35,282	133,147	(794)	794	15,188	(88)	15,100	15,100	148,247
CAY (2020)	32,509	28,758	61,267	(368)	368	7,107	(43)	7,064	7,064	68,331
claims liabilities:	130,374	64,040	194,414	(1,162)	1,162	22,295	(131)	22,164	22,164	216,578
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	79,881	(1,694)	78,187	(311)	311	6,302	(25)	6,277	6,277	84,464
									*Total may not be sum of parts, as apvs apply to future costs within UPR	
policy liabilities:			**272,601**	**(1,473)**	**1,473**	**28,597**	**(156)**	**28,441**	**28,441**	**301,042**

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, 2020 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Sep. 30, 2020)

Accident Year	Third Party Liability Margins	Accident Benefits Margins	Other Coverages Margins	Total 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%	5.0%	10.0%
2014	10.0%	10.0%	9.3%	10.0%
2015	10.0%	10.0%	10.0%	9.9%
2016	10.0%	10.0%	10.0%	10.0%
2017	10.0%	10.0%	10.0%	10.0%
2018	12.5%	10.0%	12.5%	12.5%
2019	12.5%	10.0%	7.5%	12.5%
2020	12.2%	10.0%	12.5%	11.6%
2021	11.9%	10.0%	5.1%	8.1%
prem liab	11.9%	10.0%	5.1%	8.1%

discount rate:	0.22%
margin (basis points):	25

EXHIBIT F

Interest Rate Sensitivity

The tables below present sensitivity to the member statement claims liability as projected to Dec. 31, 2020 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2020, and are based on more up-to-date information). We have included the most recent valuation selection (0.22%), the prior valuation assumption (0.26%) and the prior fiscal year end valuation assumption (1.46%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

$ Format: $000s

	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2020 projected Unpaid							
AY	0.00%	0.00%	0.22%	0.72%	1.22%	1.72%	0.26%	1.46%
2004	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	1	1	1	1	1	1	1	1
2007	301	301	301	299	298	296	301	297
2008	-	-	-	-	-	-	-	-
2009	802	802	801	794	787	780	801	784
2010	1,083	1,083	1,083	1,073	1,063	1,054	1,082	1,059
2011	738	738	738	729	720	711	738	715
2012	2,567	2,567	2,566	2,541	2,514	2,489	2,566	2,502
2013	3,191	3,191	3,189	3,156	3,121	3,087	3,188	3,105
2014	4,054	4,054	4,052	3,998	3,941	3,886	4,051	3,914
2015	6,867	6,867	6,862	6,758	6,651	6,547	6,860	6,600
2016	16,713	16,713	16,704	16,485	16,259	16,042	16,699	16,155
2017	23,606	23,606	23,593	23,305	23,008	22,723	23,586	22,870
2018	36,747	36,747	36,722	36,281	35,821	35,385	36,711	35,612
2019	48,433	48,433	48,401	47,758	47,092	46,456	48,385	46,787
2020	69,268	69,268	69,224	68,330	67,411	66,534	69,204	66,986
Total	214,371	214,371	214,237	211,508	208,687	205,991	214,173	207,387
	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%	0.00%	0.22%	0.72%	1.22%	1.72%	0.26%	1.46%
Total	134	134	-	(2,729)	(5,550)	(8,246)	(64)	(6,850)
	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%	0.00%	0.22%	0.72%	1.22%	1.72%	0.26%	1.46%
2004	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-
2007	-	-	-	(0.7%)	(1.0%)	(1.7%)	-	(1.3%)
2008	-	-	-	-	-	-	-	-
2009	0.1%	0.1%	-	(0.9%)	(1.7%)	(2.6%)	-	(2.1%)
2010	-	-	-	(0.9%)	(1.8%)	(2.7%)	(0.1%)	(2.2%)
2011	-	-	-	(1.2%)	(2.4%)	(3.7%)	-	(3.1%)
2012	0.0%	0.0%	-	(1.0%)	(2.0%)	(3.0%)	-	(2.5%)
2013	0.1%	0.1%	-	(1.0%)	(2.1%)	(3.2%)	(0.0%)	(2.6%)
2014	0.0%	0.0%	-	(1.3%)	(2.7%)	(4.1%)	(0.0%)	(3.4%)
2015	0.1%	0.1%	-	(1.5%)	(3.1%)	(4.6%)	(0.0%)	(3.8%)
2016	0.1%	0.1%	-	(1.3%)	(2.7%)	(4.0%)	(0.0%)	(3.3%)
2017	0.1%	0.1%	-	(1.2%)	(2.5%)	(3.7%)	(0.0%)	(3.1%)
2018	0.1%	0.1%	-	(1.2%)	(2.5%)	(3.6%)	(0.0%)	(3.0%)
2019	0.1%	0.1%	-	(1.3%)	(2.7%)	(4.0%)	(0.0%)	(3.3%)
2020	0.1%	0.1%	-	(1.3%)	(2.6%)	(3.9%)	(0.0%)	(3.2%)
Total	0.1%	0.1%	-	(1.3%)	(2.6%)	(3.8%)	(0.0%)	(3.2%)
	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 During Month

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

M/S IBNR - in $000s

	Values						
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**
2004	42	(1)	1	-	-	-	42
2005	13	-	-	-	-	-	13
2006	83	(2)	2	-	-	-	83
2007	96	(2)	2	-	-	-	96
2008	69	(1)	1	-	-	-	69
2009	65	(4)	3	-	(1)	(1.5%)	64
2010	126	(4)	2	1	(1)	(0.8%)	125
2011	(158)	2	67	260	329	(208.2%)	171
2012	358	(11)	(80)	85	(6)	(1.7%)	352
2013	904	(23)	7	(90)	(106)	(11.7%)	798
2014	1,144	(27)	180	-	153	13.4%	1,297
2015	1,905	(48)	50	-	2	0.1%	1,907
2016	3,338	(118)	299	594	775	23.2%	4,113
2017	7,055	(124)	(666)	(209)	(999)	(14.2%)	6,056
2018	13,771	(485)	702	359	576	4.2%	14,347
2019	24,834	(334)	(120)	(784)	(1,238)	(5.0%)	23,596
2020	28,288	1,606	4,371	(1,882)	4,095	14.5%	32,383
Grand Total	**81,933**	**424**	**4,821**	**(1,666)**	**3,579**	**4.4%**	**85,512**

EXHIBIT G

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

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

IBNR - in $000s

AccYear	Values 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
2004	36	(1)	1	-	-	-	36
2005	5	-	-	-	-	-	5
2006	75	(1)	1	-	-	-	75
2007	60	(1)	1	-	-	-	60
2008	66	(1)	1	-	-	-	66
2009	(21)	-	(1)	-	(1)	4.8%	(22)
2010	19	-	(2)	-	(2)	(10.5%)	17
2011	(212)	4	68	236	308	(145.3%)	96
2012	110	(2)	(89)	77	(14)	(12.7%)	96
2013	585	(11)	(4)	(81)	(96)	(16.4%)	489
2014	778	(14)	215	-	201	25.8%	979
2015	1,224	(22)	25	-	3	0.2%	1,227
2016	1,596	(69)	301	539	771	48.3%	2,367
2017	4,551	(46)	(697)	(192)	(935)	(20.5%)	3,616
2018	9,340	(392)	743	316	667	7.1%	10,007
2019	19,199	(250)	(35)	(702)	(987)	(5.1%)	18,212
2020	22,828	1,187	4,184	(1,789)	3,582	15.7%	26,410
Grand Total	**60,239**	**381**	**4,712**	**(1,596)**	**3,497**	**5.8%**	**63,736**