ALBERTA NON-GRID RISK SHARING POOL

APRIL 2021 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

Related Bulletin: F2021-035_AB_RSP_April_2021_Operational_Report

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FACILITY ASSOCIATION

ACTUARIAL HIGHLIGHTS

RSP ALBERTA NON-GRID

OPERATIONAL REPORT

APRIL 2021

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1 Summary

Note to members: we are currently reviewing our member reporting requirements and intend to provide the **Actuarial Highlights quarterly instead of the current monthly reporting**, starting with the May 2021 operational reporting and aligned with the valuation schedule; please contact us with any questions or concerns in regards to this matter.

1.1 Valuation Schedule (Fiscal Year 2021)

The April 2021 Operational Report leverages actuarial assumptions consistent with last month (that is, it does not reflect the results of an updated valuation). 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	% mfad -- bp	May 2021	update valuation (roll-forward):
Jun. 30, 2021	% mfad -- bp	Aug. 2021	update valuation:
Sep. 30, 2021	% mfad -- bp	Oct. 2021	update valuation (roll-forward):

Under the proposed schedule for fiscal year 2021, the off-half valuation quarters ending 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 Appointed Actuary and Hybrid Actuarial Services Model

The Annual General Meeting of the members of Facility Association ("FA") appointed Mr. Cosimo

[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%.

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.

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

There have been no changes in these descriptions since last month's Highlights.

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 December 31, 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 June 30, 2020).

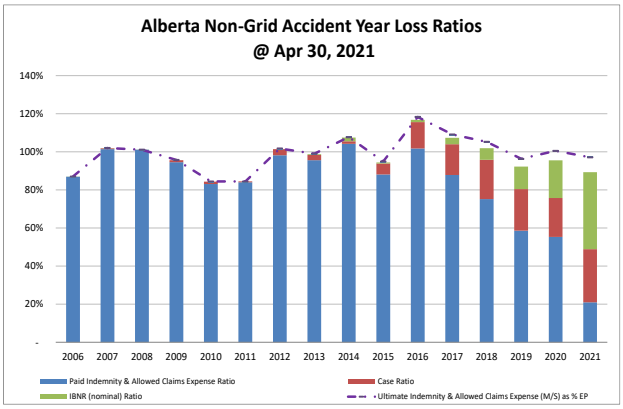
Amendments to the **Alberta Automobile Accident Insurance Benefits Regulation, Diagnostic and Treatment Protocols Regulation, and Minor Injury Regulation** came into force effective November 1, 2020, amending definitions and various benefit maximums defined in these regulations. **Alberta Bill 41** (Insurance (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 With the **most recent** valuation (December 31, 2020), consideration of changes were included with the updated industry trend analysis (completed using industry data as at June 30, 2020). 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.

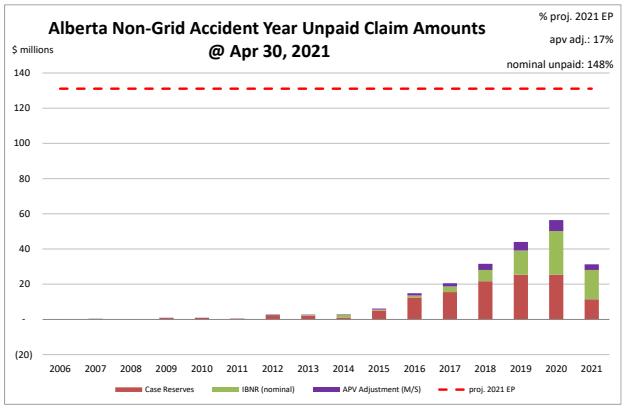
1.4 Current Provision Summary

The following charts show the current levels of claim liabilities[2] booked by accident year. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present

[2]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.

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.





"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 ($22.6 million – see the following table) represents 17% 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.

claim liabilities ($000s)

	amt	%
case	125,428	58.0%
ibnr	68,263	31.6%
M/S apv adjust.	22,580	10.4%
M/S total	216,271	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 61% of the IBNR balance relates to accident years 2020 and 2021 (see Exhibit B). Approximately 85% 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.

premium liabilities ($000s)

	amt	%
unearned prem	64,987	102.2%
prem def/(dpac)	(6,109)	(9.6%)
M/S apv adjust.	4,724	7.4%
M/S total	63,602	100.0%

policy liabilities ($000s)

	amt	%
claim	193,691	69.2%
premium	58,878	21.0%
M/S apv adjust.	27,304	9.8%
M/S total	279,873	100.0%

2 Activity During the Month of April 2021

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[3].

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	(1)	(1)	1,937	142	(1,110)	412	827	554
2019	(22)	(22)	679	81	(215)	(44)	464	37
2020	(120)	(120)	850	(582)	(821)	363	29	(219)
2021	10,423	(363)	2,639	(1,502)	2,326	(421)	4,965	(1,923)
TOTAL	10,281	(506)	6,105	(1,861)	179	310	6,284	(1,552)

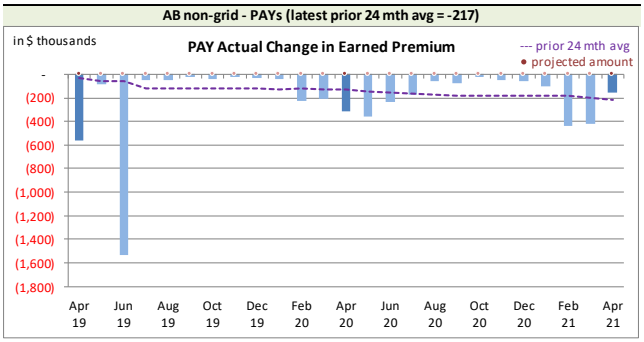
(Recorded transaction amounts exclude IBNR & other actuarial provisions)

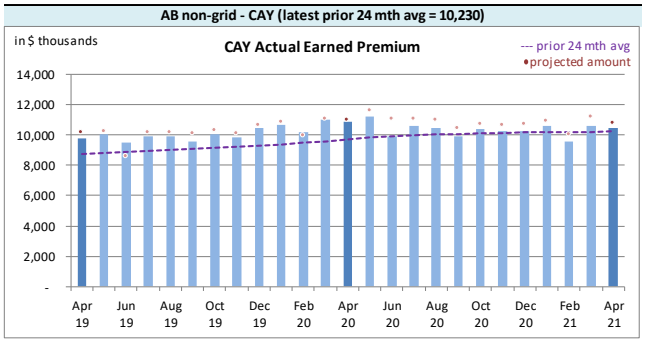
Claims transaction activity is generally volatile and changes from one month to the next are anticipated due to this natural "process variance" (i.e. random variation). Each month, the projection variances are reviewed for signs of projection bias and to identify potential ways to reduce the level of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





On Latest $ thousands		
Earned Premium	PAYs	CAY
Mthly Avg EP Chg (prior 24 mths)	(217)	10,230
std dev	320	463
A-P <> std dev	5	4
% <> std dev	20.0%	16.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

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.

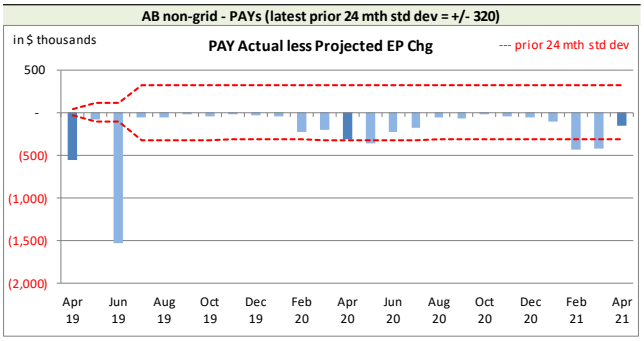
The associated variance between the actual changes and the projections from the previous month are shown in the following charts. **Earned**

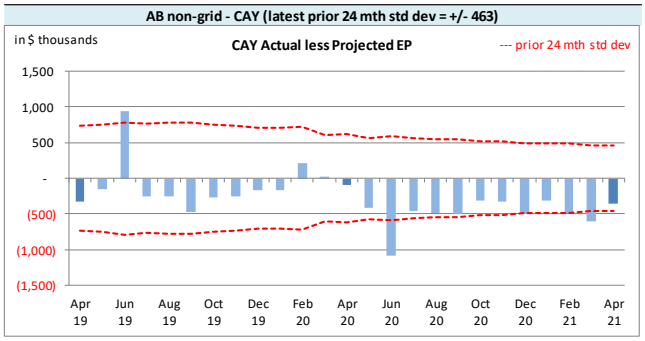
[3]There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

[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.

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*



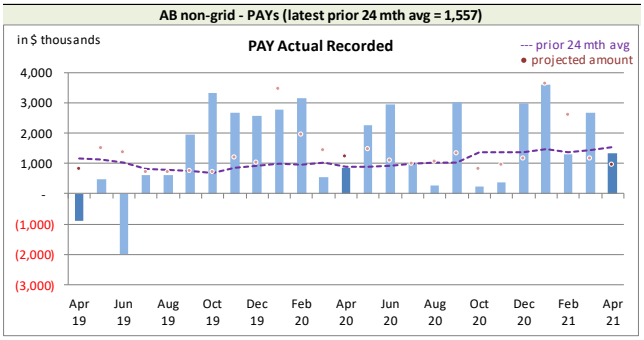


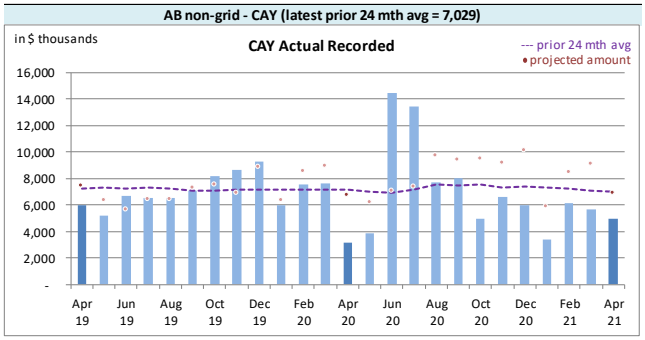
We project **earned premium** changes from known unearned premium and projected written premium levels, but upload the total projections as current accident year (CAY). This process has generated prior accident years' (PAYs) bias[5], with actuals generally lower than projected, although the magnitude 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.

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



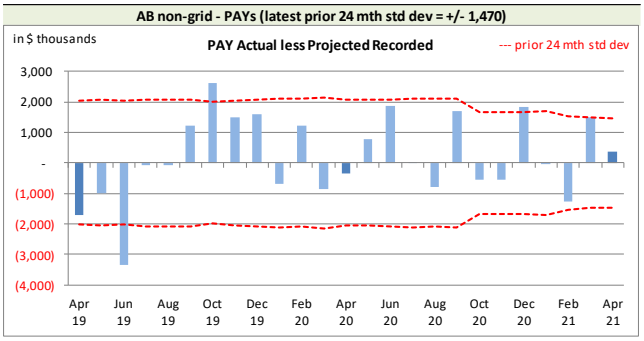


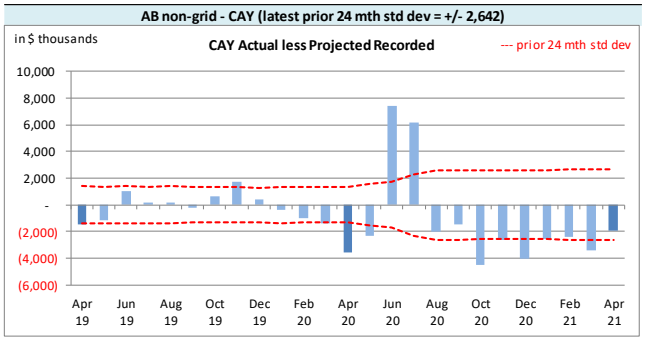
[5]The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

[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 April 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.

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)	1,557	7,029
std dev	1,470	2,642
A-P <> std dev	4	11
% <> std dev	16.0%	44.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	worse

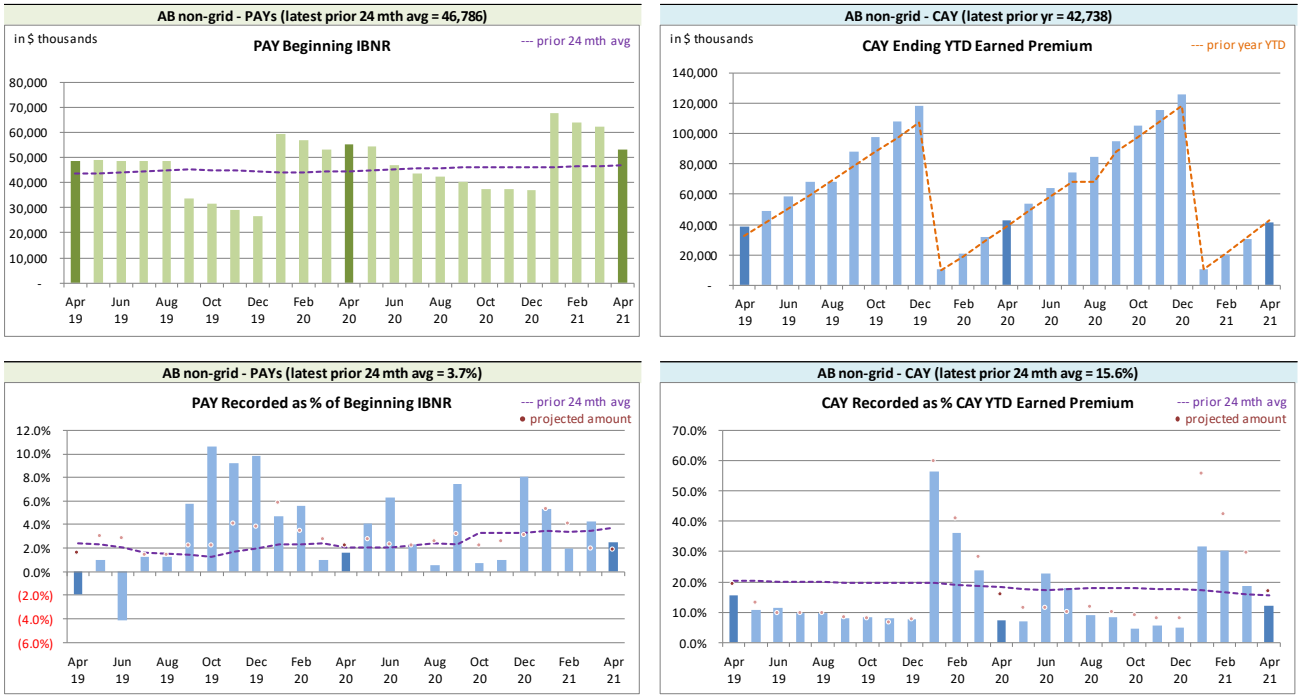
With respect to **recorded** indemnity & allowed claims expense activity, 16% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **recorded** amounts (see table on left), suggesting the projection process has performed 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 (12 of 25 variances are positive).

The current accident year (CAY) **recorded** variances fell outside of one standard deviation 44% 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 (8 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:

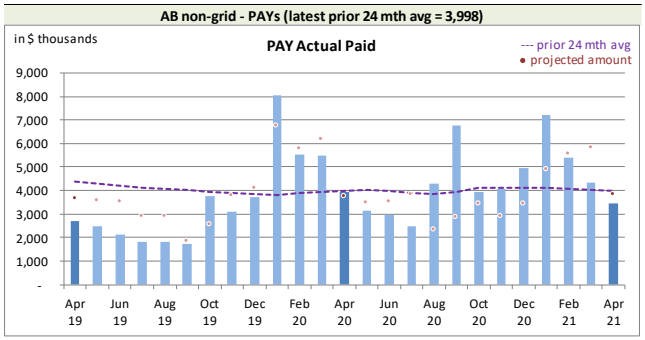
- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY(occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one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

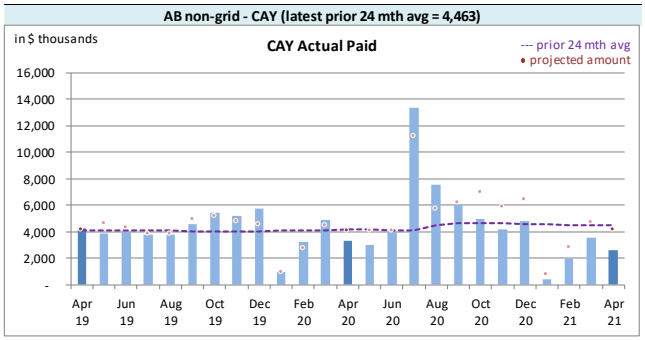
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

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.

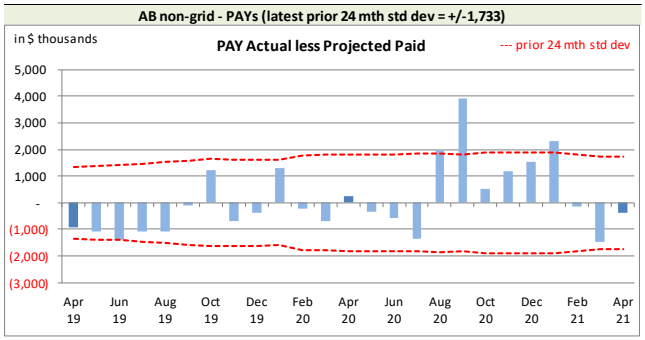
*Alberta non-Grid RSP Actual **Paid** activity by Calendar Month*

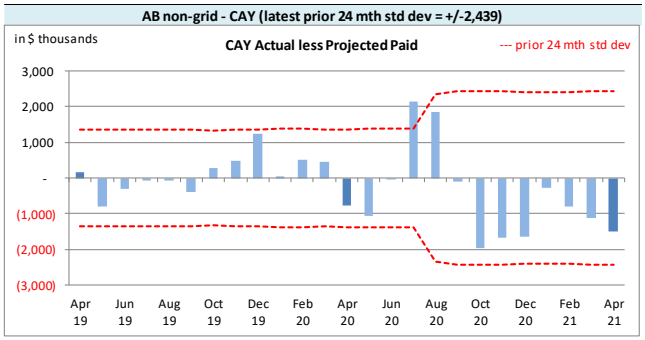




Paid activity variances from the previous month's projections are shown in the following charts, including the "prior 24-month standard deviation" levels to show how the variances from projection compare with historical standard deviations.

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





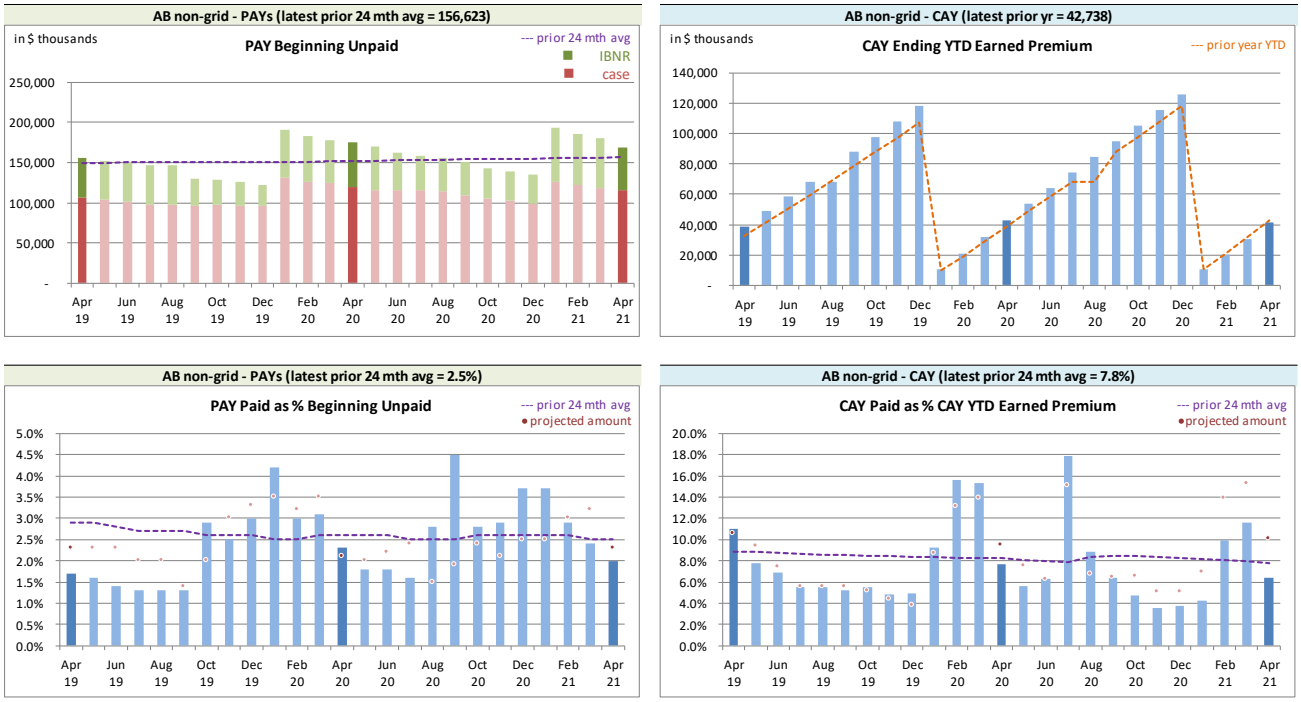
On Latest $ thousands		
Paid	PAYs	CAY
Mthly Avg Paid (prior 24 mths)	3,998	4,463
std dev	1,733	2,439
A-P <> std dev	3	1
% <> std dev	12.0%	4.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 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 (9 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 (9 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.

[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".

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

			actuarial present value adjustments					
	IBNR		Discount Amount		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	13,234	(571)	(482)	(1)	8,759	(20)	21,511	(592)
2019	13,733	(57)	(235)	1	5,101	(14)	18,599	(70)
2020	24,681	105	(351)	(3)	6,580	61	30,910	163
2021	16,615	1,599	(197)	(9)	3,405	144	19,823	1,734
TOTAL	68,263	1,076	(1,265)	(12)	23,845	171	90,843	1,235

The IBNR provision is $1.1 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.

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 deferred policy acquisition cost asset 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.

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:	(6,109)	(136)	4,724	117	(1,385)	(19)
balance as % unearned premium:	(9.4%)	-	7.3%	0.1%	(2.1%)	0.1%
actual unearned premium:	64,987					
less projected:	1,588					

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 91.8% rather than 89.3% (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.)

[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.

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	(7,260)	(18.1%)	(2,680)	(6.7%)	(9,940)	(24.8%)	(567)	6.7%
CAY	36,752	91.8%	3,208	8.0%	39,960	99.8%	10,070	(0.6%)
TOTAL	29,492	73.7%	528	1.3%	30,020	75.0%	9,502	6.1%

("% 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 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.

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.

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

discount rate 0.25%

interest rate margin 25 basis pts

Accident Year	Actual Mar. 2021	Actual Apr. 2021	Projected May. 2021	Projected Jun. 2021	Projected Jul. 2021	Projected Aug. 2021	Projected Sep. 2021	Projected Dec. 2021
2005	13	13	13	12	12	12	12	11
2006	83	83	78	74	73	71	69	62
2007	100	100	95	90	88	86	83	74
2008	70	70	67	63	62	60	58	51
2009	57	57	55	54	52	51	51	45
2010	110	93	91	87	85	83	81	73
2011	3	2	3	4	3	3	3	2
2012	269	269	260	252	246	239	233	208
2013	525	542	519	496	486	472	458	411
2014	1,902	1,919	1,827	1,720	1,699	1,649	1,592	1,438
2015	1,013	1,053	1,011	966	947	922	895	804
2016	2,491	2,403	2,306	2,209	2,163	2,105	2,042	1,834
2017	5,391	4,994	4,653	4,344	4,152	3,966	3,722	3,399
2018	10,497	9,871	9,365	8,619	8,022	7,802	7,407	6,760
2019	19,169	18,599	17,692	17,487	16,938	16,225	15,494	13,989
2020	31,172	30,910	30,532	30,013	29,666	29,351	28,882	27,202
2021	14,718	19,823	23,304	25,969	28,612	30,929	32,771	37,059
TOTAL	87,625	90,843	91,911	92,497	93,344	94,063	93,888	93,454
Change		3,218	1,068	586	847	719	(175)	

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 Mar. 2021	Actual Apr. 2021	Projected May. 2021	Projected Jun. 2021	Projected Jul. 2021	Projected Aug. 2021	Projected Sep. 2021	Projected Dec. 2021
97.4%	2005	5	5	5	5	5	5	5	5
87.0%	2006	75	75	71	67	66	64	62	56
101.9%	2007	63	63	60	56	55	53	51	46
101.1%	2008	67	67	64	60	59	57	55	49
95.6%	2009	(22)	(22)	(21)	(20)	(20)	(19)	(18)	(16)
84.3%	2010	7	8	8	7	7	7	7	7
84.4%	2011	(32)	(33)	(31)	(29)	(29)	(28)	(27)	(25)
101.4%	2012	23	23	22	21	21	20	19	17
98.7%	2013	274	292	277	260	257	249	240	217
107.4%	2014	1,631	1,650	1,566	1,467	1,452	1,408	1,357	1,228
94.3%	2015	444	499	474	444	440	427	412	373
116.8%	2016	1,120	1,058	1,004	941	932	904	871	788
107.2%	2017	3,465	3,135	2,837	2,565	2,409	2,250	2,047	1,859
101.9%	2018	6,922	6,378	5,925	5,244	4,725	4,545	4,227	3,841
92.1%	2019	14,217	13,733	12,909	12,780	12,345	11,691	11,060	9,875
95.5%	2020	24,824	24,681	24,434	24,043	23,803	23,565	23,188	21,777
89.3%	2021	12,271	16,615	19,423	21,482	23,268	24,708	25,678	27,151
	TOTAL	65,390	68,263	69,061	69,425	69,827	69,937	69,264	67,275
	Change		2,873	798	364	402	110	(673)	

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 Mar. 2021	Actual Apr. 2021	Projected May. 2021	Projected Jun. 2021	Projected Jul. 2021	Projected Aug. 2021	Projected Sep. 2021	Projected Dec. 2021
(1) unearned premium (UP)	61,165	64,987	68,985	71,527	72,883	73,693	74,599	76,694
FOR MEMBER SHARING								
(2) expected future costs ratio {% of (1)}	97.4%	97.9%	98.4%	99.0%	99.7%	100.4%	101.2%	104.1%
(3) expected future costs {(1) x (2)}	59,598	63,602	67,886	70,840	72,655	74,008	75,512	79,875
(4) premium deficiency / (deferred policy acquisition cost)	(1,567)	(1,385)	(1,099)	(687)	(228)	315	913	3,181
Excluding Actuarial Present Value Adjustments								
(5) expected future costs ratio {% of (1)}	90.2%	90.6%	91.1%	91.7%	92.3%	93.0%	93.7%	96.4%
(6) expected future costs {(1) x (5)}	55,173	58,878	62,845	65,579	67,258	68,511	69,904	73,941
(7) premium deficiency / (deferred policy acquisition cost)	(5,992)	(6,109)	(6,140)	(5,948)	(5,625)	(5,182)	(4,695)	(2,753)

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	57	5	62	-	-	6	-	6	6	68
2006	3	56	59	-	-	6	-	6	6	65
2007	238	46	284	(1)	1	28	-	28	28	312
2008	(25)	49	24	-	-	2	-	2	2	26
2009	629	(16)	613	(2)	2	61	-	61	61	674
2010	656	7	663	(3)	3	66	-	66	66	729
2011	296	(25)	271	(2)	2	27	-	27	27	298
2012	1,903	17	1,920	(12)	12	192	(1)	191	191	2,111
2013	1,736	217	1,953	(10)	10	195	(1)	194	194	2,147
2014	879	1,228	2,107	(13)	13	211	(1)	210	210	2,317
2015	3,965	373	4,338	(30)	30	434	(3)	431	431	4,769
2016	9,754	788	10,542	(84)	84	1,054	(8)	1,046	1,046	11,588
2017	13,626	1,859	15,485	(93)	93	1,549	(9)	1,540	1,540	17,025
2018	19,657	3,841	23,498	(141)	141	2,937	(18)	2,919	2,919	26,417
2019	23,233	9,875	33,108	(199)	199	4,139	(25)	4,114	4,114	37,222
2020	21,926	21,777	43,703	(306)	306	5,463	(38)	5,425	5,425	49,128
PAYs (sub-total):	98,554	40,124	138,678	(896)	896	16,375	(104)	16,271	16,271	154,949
CAY (2021)	59,614	27,151	86,765	(607)	607	9,978	(70)	9,908	9,908	96,673
claims liabilities:	158,168	67,275	225,443	(1,503)	1,503	26,353	(174)	26,179	26,179	251,622
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs	TOTAL*
premium liabilities:	76,694	(2,753)	73,941	(294)	294	5,958	(24)	5,934	5,934	79,875
										*Total may not be sum of parts, as apvs apply to future costs within UPR
policy liabilities:			**299,384**	**(1,797)**	**1,797**	**32,311**	**(198)**	**32,113**	**32,113**	**331,497**

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.

	Selected Claims Development MfADs (Dec. 31, 2020)			
Accident Year	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	12.5%	10.0%	12.5%	12.5%
2019	12.5%	10.0%	12.5%	12.5%
2020	12.5%	10.0%	12.5%	12.5%
2021	12.1%	10.0%	8.1%	11.6%
prem liab	11.9%	10.0%	5.1%	8.1%

discount rate:	0.25%
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, 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 (0.25%), the prior valuation assumption (0.22%) 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.

$ Format: $000s

	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2021 projected Unpaid							
AY	0.00%	0.00%	0.25%	0.75%	1.25%	1.75%	0.22%	0.22%
2004	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-
2007	200	200	200	200	199	198	200	200
2008	-	-	-	-	-	-	-	-
2009	626	626	626	621	616	611	626	626
2010	722	722	721	715	710	704	721	721
2011	341	341	341	336	332	328	341	341
2012	1,757	1,757	1,756	1,736	1,717	1,697	1,756	1,756
2013	1,889	1,889	1,888	1,869	1,850	1,832	1,888	1,888
2014	2,690	2,690	2,689	2,658	2,628	2,599	2,689	2,689
2015	4,793	4,793	4,790	4,723	4,659	4,596	4,790	4,790
2016	10,644	10,644	10,637	10,475	10,319	10,166	10,638	10,638
2017	15,076	15,076	15,068	14,878	14,695	14,518	15,068	15,068
2018	23,763	23,763	23,747	23,453	23,168	22,889	23,747	23,747
2019	36,420	36,420	36,396	35,946	35,509	35,082	36,400	36,400
2020	48,841	48,841	48,803	48,122	47,468	46,828	48,808	48,808
Total	147,762	147,762	147,662	145,732	143,870	142,048	147,672	147,672
	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%	0.25%	0.75%	1.25%	1.75%	0.22%	0.22%
Total	100	100	-	(1,930)	(3,792)	(5,614)	10	10
	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%	0.25%	0.75%	1.25%	1.75%	0.22%	0.22%
2004	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-
2007	-	-	-	-	(0.5%)	(1.0%)	-	-
2008	-	-	-	-	-	-	-	-
2009	-	-	-	(0.8%)	(1.6%)	(2.4%)	-	-
2010	0.1%	0.1%	-	(0.8%)	(1.5%)	(2.4%)	-	-
2011	-	-	-	(1.5%)	(2.6%)	(3.8%)	-	-
2012	0.1%	0.1%	-	(1.1%)	(2.2%)	(3.4%)	-	-
2013	0.1%	0.1%	-	(1.0%)	(2.0%)	(3.0%)	-	-
2014	0.0%	0.0%	-	(1.2%)	(2.3%)	(3.3%)	-	-
2015	0.1%	0.1%	-	(1.4%)	(2.7%)	(4.1%)	-	-
2016	0.1%	0.1%	-	(1.5%)	(3.0%)	(4.4%)	0.0%	0.0%
2017	0.1%	0.1%	-	(1.3%)	(2.5%)	(3.7%)	-	-
2018	0.1%	0.1%	-	(1.2%)	(2.4%)	(3.6%)	-	-
2019	0.1%	0.1%	-	(1.2%)	(2.4%)	(3.6%)	0.0%	0.0%
2020	0.1%	0.1%	-	(1.4%)	(2.7%)	(4.0%)	0.0%	0.0%
Total	0.1%	0.1%	-	(1.3%)	(2.6%)	(3.8%)	0.0%	0.0%
	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

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
2005	13	-	-	-	-	-	13
2006	83	(2)	2	-	-	-	83
2007	100	(2)	2	-	-	-	100
2008	70	(1)	1	-	-	-	70
2009	57	(2)	2	-	-	-	57
2010	110	(3)	(14)	-	(17)	(15.5%)	93
2011	3	(1)	-	-	(1)	(33.3%)	2
2012	269	(7)	7	-	-	-	269
2013	525	(10)	27	-	17	3.2%	542
2014	1,902	(24)	41	-	17	0.9%	1,919
2015	1,013	(20)	60	-	40	3.9%	1,053
2016	2,491	(49)	(39)	-	(88)	(3.5%)	2,403
2017	5,391	(81)	(316)	-	(397)	(7.4%)	4,994
2018	10,497	(261)	(365)	-	(626)	(6.0%)	9,871
2019	19,169	(500)	(70)	-	(570)	(3.0%)	18,599
2020	31,172	(425)	163	-	(262)	(0.8%)	30,910
2021	14,718	3,371	1,734	-	5,105	34.7%	19,823
Grand Total	**87,625**	**1,983**	**1,235**	**-**	**3,218**	**3.7%**	**90,843**

EXHIBIT G

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

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

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**
2005	5	-	-	-	-	-	5
2006	75	(1)	1	-	-	-	75
2007	63	(1)	1	-	-	-	63
2008	67	(1)	1	-	-	-	67
2009	(22)	-	-	-	-	-	(22)
2010	7	-	1	-	1	14.3%	8
2011	(32)	-	(1)	-	(1)	3.1%	(33)
2012	23	-	-	-	-	-	23
2013	274	(3)	21	-	18	6.6%	292
2014	1,631	(16)	35	-	19	1.2%	1,650
2015	444	(4)	59	-	55	12.4%	499
2016	1,120	(11)	(51)	-	(62)	(5.5%)	1,058
2017	3,465	(35)	(295)	-	(330)	(9.5%)	3,135
2018	6,922	(201)	(343)	-	(544)	(7.9%)	6,378
2019	14,217	(427)	(57)	-	(484)	(3.4%)	13,733
2020	24,824	(248)	105	-	(143)	(0.6%)	24,681
2021	12,271	2,745	1,599	-	4,344	35.4%	16,615
Grand Total	**65,390**	**1,797**	**1,076**	**-**	**2,873**	**4.4%**	**68,263**