



ALBERTA NON-GRID RISK SHARING POOL

FEBRUARY 2016 OPERATIONAL REPORT

ACTUARIAL HIGHLIGHTS

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ACTUARIAL HIGHLIGHTS**RSP ALBERTA NON-GRID****OPERATIONAL REPORT****FEBRUARY 2016**

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1 Summary

1.1 Valuation Schedule (Fiscal Year 2016)

The February 2016 Operational Report leverages actuarial assumptions consistent with last month (that is, it does not reflect the results of an updated valuation). The table immediately below summarizes the implemented valuations and future scheduled valuations for fiscal year 2016.

ALBERTA NON-GRID RISK SHARING POOL FISCAL YEAR 2016 – SCHEDULE OF VALUATIONS			
Valuation Date	Discount Rate (per annum)	Operational Report	Description of Changes
Sep. 30, 2015 (completed)	0.78% mfad: 25 bp	Oct. 2015	updated valuation (roll forward): accident year 2015 loss ratio increased 1.5 points to 101.4%; discount rate decreased by 19 basis points; no change to selected margins for adverse deviations
Dec. 31, 2015		Mar. 2016	update valuation:
Mar. 31, 2016		May 2016	update valuation (roll forward):
Jun. 30, 2016		Aug. 2016	update valuation:
Sep. 30, 2016		Oct. 2016	update valuation (roll forward):

Under the proposed schedule for fiscal year 2016, the “off-half” valuation quarters ending March 31, 2016 and September 30, 2016 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

Liam McFarlane of Ernst & Young LLP is Facility Association’s Appointed Actuary (effective as of June 1, 2013).

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

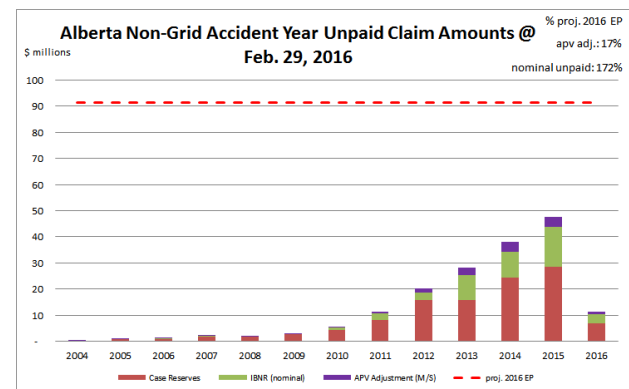
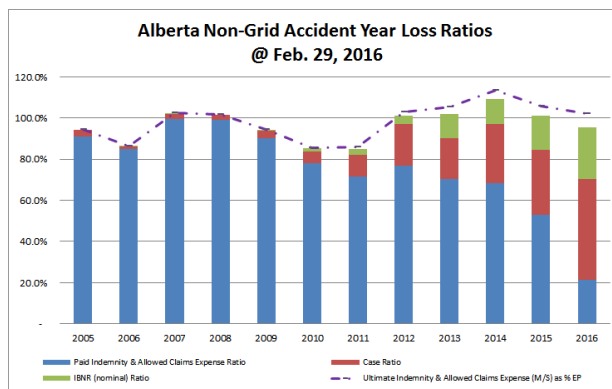
Consideration and assessment of potential impacts of legal decisions and changes in legislation / regulation constitutes a regular part of the valuation process. Descriptions of some of the more recent changes are provided below.

Alberta Bill 39 (Enhancing Consumer Protection in Auto Insurance Act) was introduced into the

Legislature by the Minister of Finance on November 6, 2013, and received Royal Assent on December 11, 2013. Bill 39 includes various amendments and provisions such as, allowing for both mandatory and optional auto insurance premiums to be regulated by the independent Automobile Insurance Rate Board (AIRB), the introduction of an Insurer file and approve system for premium adjustments instead of an annual industry-wide rate adjustment, improved access to health care after a collision and strengthened Insurance Company solvency requirements. No specific adjustments have been made to the current valuation assumptions based on Bill 39.

1.4 Current Provision Summary

The charts immediately below show the current levels of claim liabilities¹ booked by accident year². 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 2016 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 (\$15.1 million – see table immediately below) represents 17% of the earned premium projected for the full year 2016 (see the upper right corner of the right chart above). 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 period.

claim liabilities (\$000s)		
	amt	%
case	111,885	65.0%
ibnr	45,117	26.2%
M/S apv adjust.	15,124	8.8%
M/S total	172,126	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 is in case reserves for this pool. Approximately 41% of the IBNR balance relates to accident years 2015 and 2016 (see Exhibit B). Approximately 85% of the M/S total

claim liabilities are related to accident years 2012-2016 inclusive (i.e. the most recent 5 accident years).

¹Claim 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.

²Accident year 2004 was an incomplete year and therefore has been excluded from the loss ratio chart.

The tables immediately below summarize the premium liabilities and the total policy liabilities.

premium liabilities (\$000s)			policy liabilities (\$000s)		
	amt	%		amt	%
unearned prem	39,253	96.5%	claim	157,002	73.8%
prem def/(dpac)	(1,591)	(3.9%)	premium	37,662	17.7%
M/S apv adjust.	3,008	7.4%	M/S apv adjust.	18,132	8.5%
M/S total	40,670	100.0%	M/S total	212,796	100.0%

2 Activity During the Month of February 2016

2.1 Recorded Premium and Claims Activity

The table immediately below summarizes the extent to which premiums and claims amounts recorded during the month differ from projections reflected in the prior month's Operational Report³.

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

Table 01 Accident Year	Earned Premium		Paid Indemnity & Allowed Claims Expense		Case increase / (decrease)		Recorded increase / (decrease)	
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	(1)	(1)	2,579	1,156	(1,924)	(841)	655	315
2014	3	3	357	(336)	1,881	2,389	2,238	2,053
2015	(27)	(27)	3,602	292	(2,634)	516	968	808
2016	6,799	(19)	2,449	475	3,898	439	6,347	913
TOTAL	6,774	(44)	8,986	1,586	1,221	2,502	10,207	4,089

(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". 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.

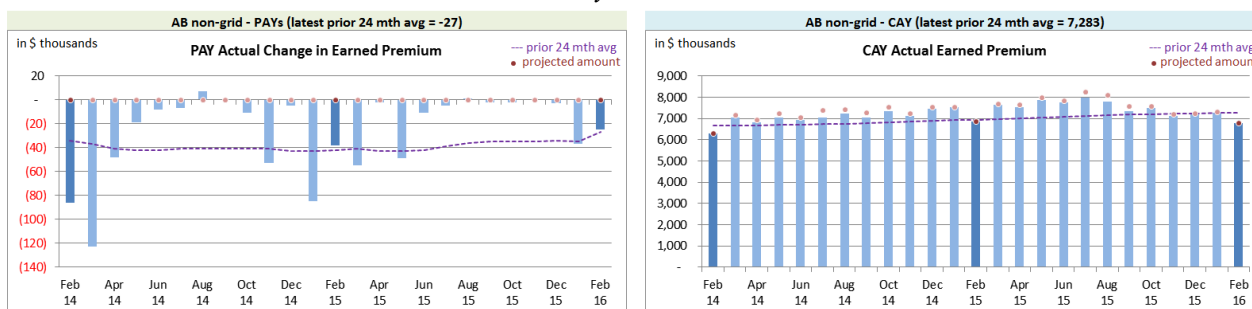
2.1.a Actual vs. Projected (AvsP): Earned Premium

The charts at the top of the next page 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.

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

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

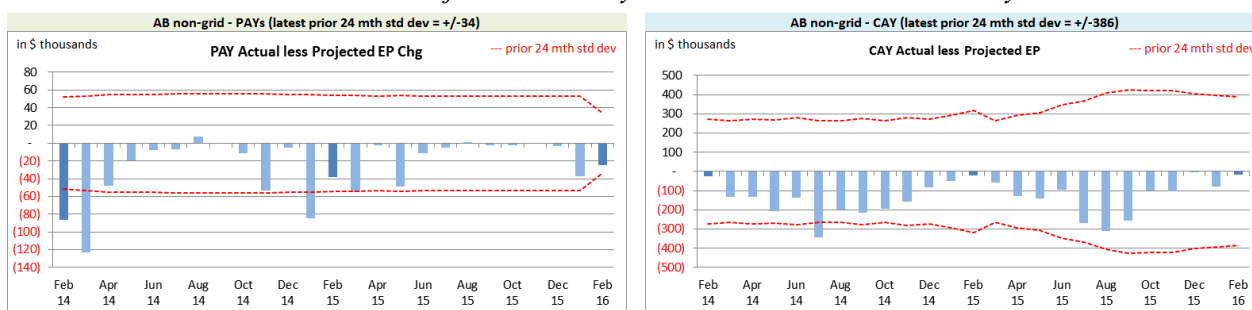
Alberta non-Grid RSP Actual **Earned Premium** by Calendar Month



Earned premium changes during a given calendar month in relation to prior accident years tend to be at modest levels, although relatively high levels seem to 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 charts immediately below. **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



On Latest \$ thousands		
	Earned Premium	
Mthly Avg EP Chg (prior 24 mths)	(27)	7,283
std dev	34	386
A-P <> std dev	4	1
% <> std dev	16.0%	4.0%
norm <> std dev	31.7%	31.7%

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 bias⁵, with actuals generally lower than projected. However, the magnitude is not high relative to monthly premium, and the

variances are within the prior 24-month standard deviation more often than indicated by a normal distribution (see table above). Over time, we may consider other projection approaches to narrow monthly variance levels further, but it is not currently deemed a priority.

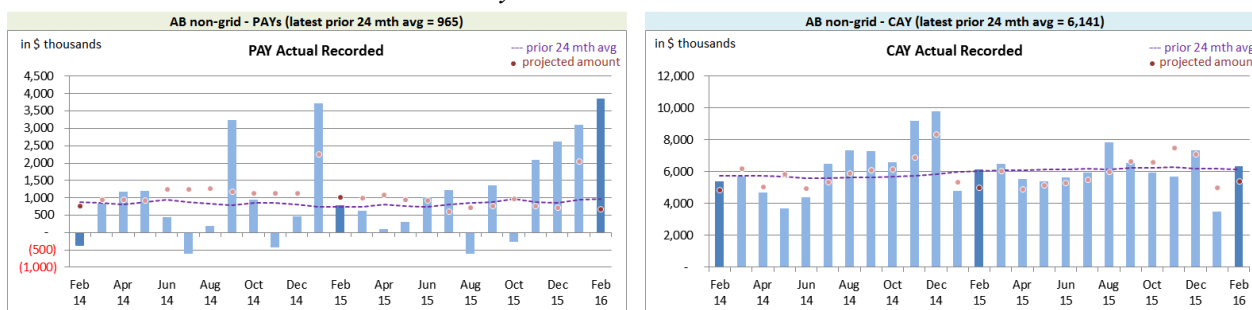
2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

Actual **recorded** activity (**paid** and case reserve changes) over the last 25-month period is shown in

⁵The prior accident years (PAYs) variances will show bias as the projection upload forces all earned premium projections to be attributed to the current accident year.

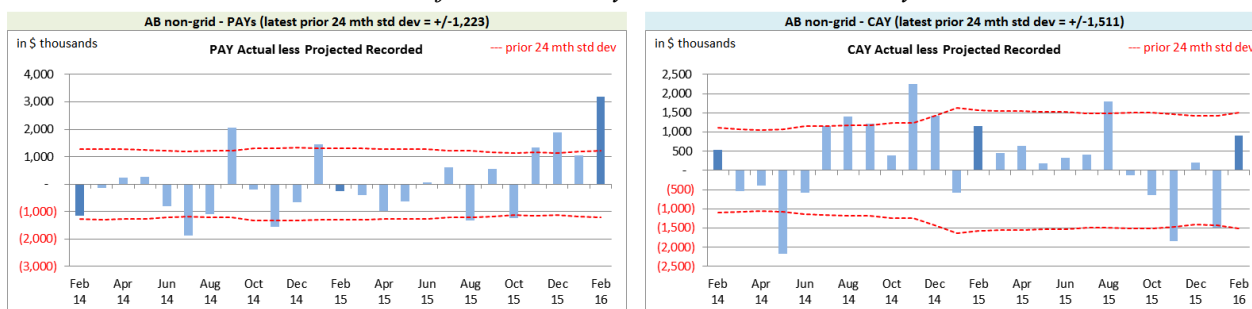
the charts immediately below, including the “prior 24-month average” level.

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



Recorded activity variances from the previous month’s projections are shown in the charts immediately below, including the “prior 24-month standard deviation” levels.

*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)	965	6,141
std dev	1,223	1,511
A-P <> std dev	9	7
% <> std dev	36.0%	28.0%
norm <> std dev	31.7%	31.7%

With respect to **recorded** indemnity & allowed claims expense activity, 36% of the prior accident years’ (PAYs) variances (left chart above) fell outside of the experience period’s standard deviation, suggesting the projection process performs worse than a projection based simply on the 24-month average. There may

also be evidence of bias in the projections (actuals tend to be lower than our projections), although adjustments made to our projections seem to have been successful in reducing the bias. As discussed at the end of this section, there has been a general rise in IBNR level, contributing to the difficulty in projecting for this RSP.

The PAY **recorded** variance for the current month was outside the one standard deviation band. This is the fourth consecutive month with recorded amounts more than \$1.0 million above our projections with three out of the four months falling outside the one standard deviation band. The activity for this month was reviewed and confirmed, but we continue to investigate with reference to our projection process.

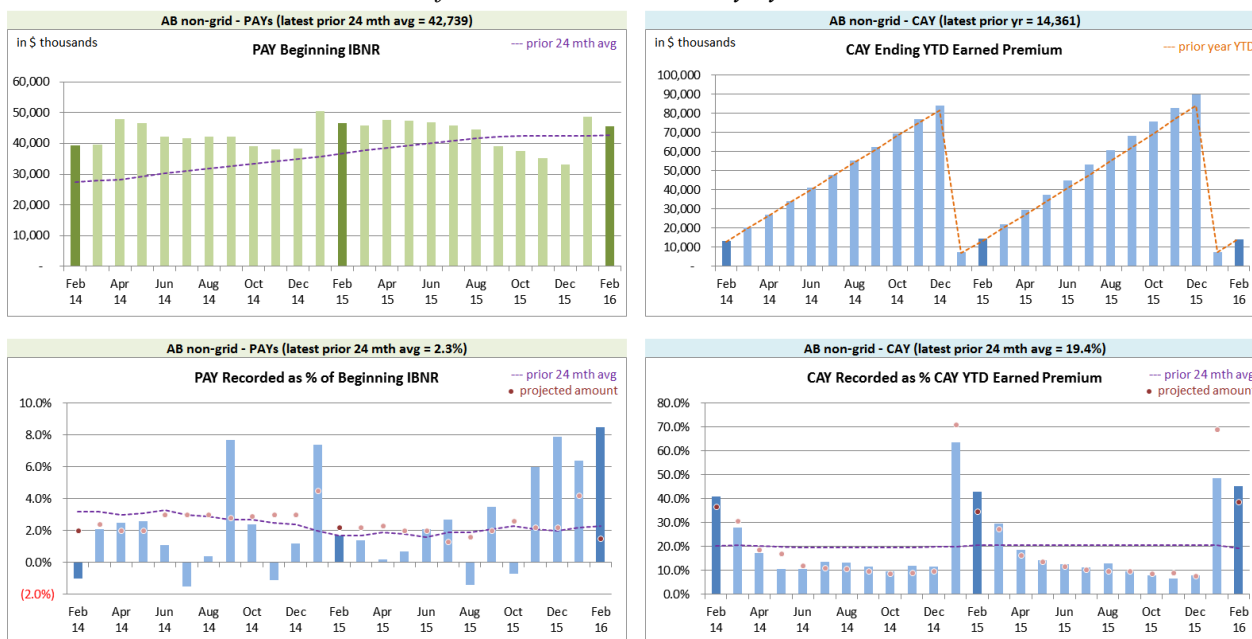
The current accident year (CAY) **recorded** variances (right chart above) have been greater than one standard deviation 28% of the time, suggesting that the projection process is not much better than simply projecting the most recent prior 24-month average. There was evidence of bias in the projection process from the middle of 2014 to the middle of 2015 (actuals tended to be higher than

our projections). Measures taken in an effort to address this bias seem to have been successful.

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, additional charts immediately below related to levels influencing **recorded** activity.

Alberta non-Grid RSP Levels that influence⁶ Recorded activity by Calendar Month



We track beginning prior accident years' IBNR as **recorded** activity "comes out of" IBNR. Changes in the prior accident years' beginning IBNR (see upper left chart above) occur for several possible reasons:

- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years' ultimate (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).

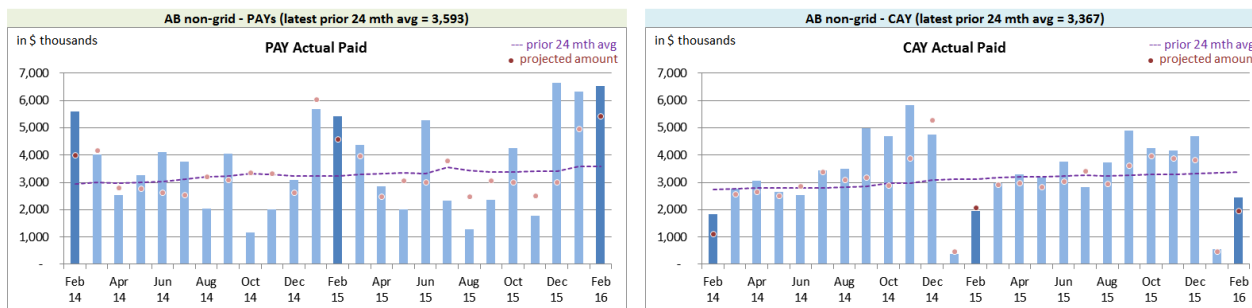
2.1.c AvsP: Paid Indemnity & Allowed Claims Expense

The charts at the top of the next page 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

⁶Our 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.

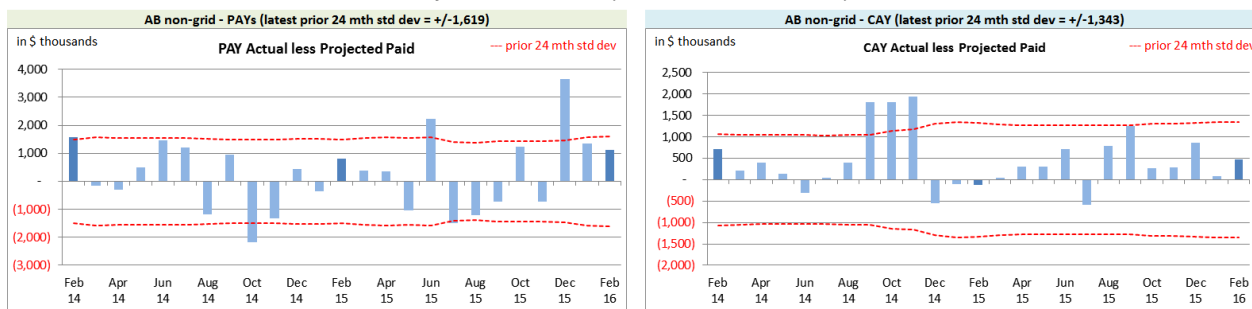
compares with the average amount of the preceding 24 calendar months. While the prior 24-month average payment for the prior accident years appears to be increasing, it has remained relatively stable for the current accident year.

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



The charts immediately below show the actual less projected **paid** variances for the last 25 calendar months, along with bands for the “prior 24-month standard deviations” 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)		3,593	3,367
std dev		1,619	1,343
A-P <> std dev		5	3
% <> std dev		20.0%	12.0%
norm <> std dev		31.7%	31.7%

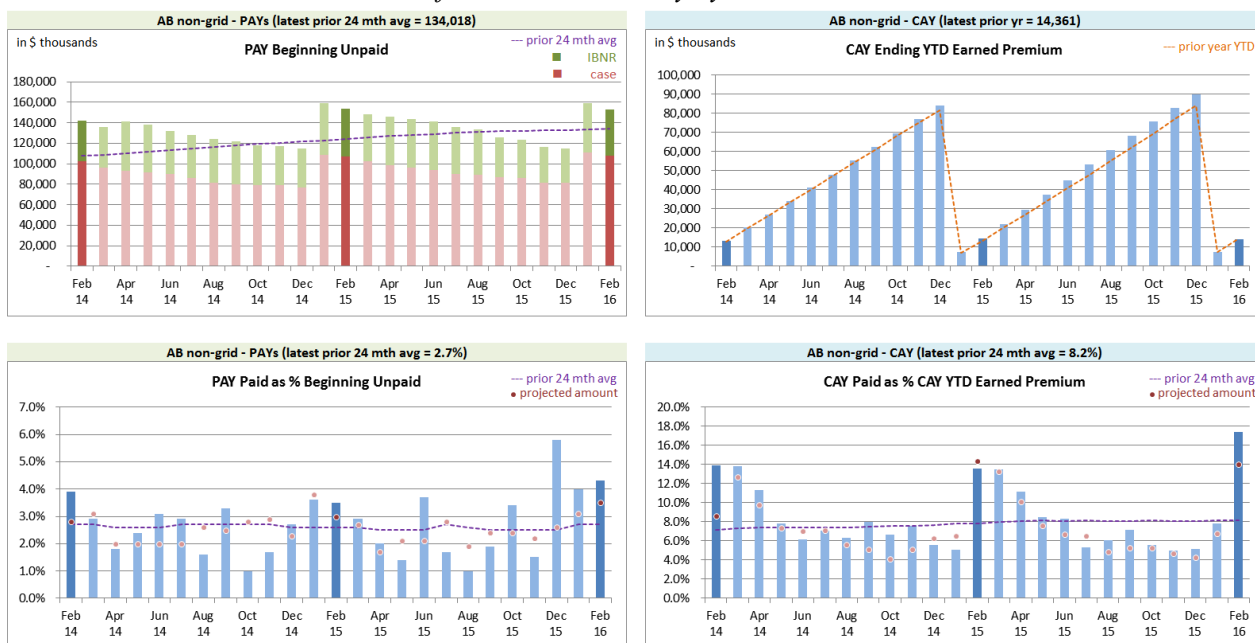
With respect to **paid** indemnity & allowed claims expense, the prior accident years’ variances (left chart above) do not appear to have bias and the magnitude of the variances do not appear to be an issue. With 20% of prior accident years (PAYs) **paid** variances over the last 25 calendar months falling outside of one

standard deviation, the projection process appears to have performed better than simply projecting based on a 24-month average.

With only 12% of the current accident year (CAY) **paid** variances falling outside of one standard deviation of the experience period activity, the projection process appears to perform better than simply projecting based on a 24-month average. However, there does appear to be evidence of bias (actuals tend to be higher than our projections).

We have included, for reference, additional charts at the top of the next page related to levels influencing **paid** activity.

Alberta non-Grid RSP Levels that influence⁷ Paid activity by Calendar Month



We track beginning prior accident years' unpaid balance (case and IBNR) as **paid** activity “comes out of” the unpaid balance. Changes in the prior accident years' beginning unpaid balance (see upper left chart above) occur for several possible reasons:

- to offset actual **paid** activity (may reduce case or IBNR or both);
- the annual switchover as a current accident year becomes a prior accident year (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of prior accident years' ultimate (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 IBNR⁸, 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 table at the top of the next page summarizes variances in provisions included in the February 2016 Operational Report and the associated one-month projections from last month's Report.

⁷Our 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.

⁸For ease of discussion, “IBNR” is used in place of “provisions for incurred but not recorded (IBNR) and development”.

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

Table 02

Accident Year	IBNR		actuarial present value adjustments				IBNR + actuarial present value adjustments	
			Discount Amount		Provisions for Adverse Deviations			
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected
Prior	16,464	(316)	(1,374)	19	7,770	(114)	22,860	(411)
2014	10,073	(2,049)	(823)	(8)	4,457	43	13,707	(2,014)
2015	15,041	(835)	(1,135)	8	5,239	(39)	19,145	(866)
2016	3,539	(931)	(249)	12	1,239	(59)	4,529	(978)
TOTAL	45,117	(4,131)	(3,581)	31	18,705	(169)	60,241	(4,269)

The IBNR provision is \$4.1 million lower 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 table immediately below summarizes the variances in the provisions for deferred policy acquisition cost asset included in the February 2016 Operational Report and the one-month projections from last month's Report. Note, that this RSP is in a deferred policy acquisition cost asset position before actuarial present value adjustments, and in a premium deficiency position after actuarial present value adjustments. The variances indicated are due to 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:	(1,591)	(47)	3,008	92	1,417	45
balance as % unearned premium:	(4.1%)	-	7.7%	-	3.6%	-
actual unearned premium:	39,253					
less projected:	1,174					

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 loss⁹ 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 table below summarizes the calendar year-to-date results for indemnity & allowed claims expenses¹⁰, 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 95.8% rather than 95.4% (the valuation ultimate ratio for accident year 2016), 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	(63)	(0.5%)	(1,111)	(7.9%)	(1,174)	(8.4%)	(634)	(0.9%)
CAY	13,406	95.8%	990	7.1%	14,396	102.9%	6,873	(1.4%)
TOTAL	13,343	95.4%	(121)	(0.9%)	13,222	94.5%	6,239	(2.3%)

(“% EP” based on 2016 calendar year-to-date earned premium; ratios may not total due to rounding)

The prior accident years (PAYs) changes from last month are due to the release of the actuarial present value adjustments with claims payments. The loss ratio change year-to-date 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, 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

⁹“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).

¹⁰Allowed 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.

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
 0.78%

 interest rate margin
 25 basis pts

Amounts in \$000s					
Accident Year	Actual Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
2004	42	42	42	42	42
2005	89	85	84	82	70
2006	191	207	205	203	189
2007	129	505	494	485	418
2008	239	187	185	181	158
2009	397	390	382	375	322
2010	1,339	1,378	1,352	1,324	1,143
2011	3,265	3,163	3,097	3,037	2,620
2012	4,929	4,608	4,516	4,425	3,815
2013	13,126	12,295	12,049	11,807	10,207
2014	15,979	13,707	13,484	13,215	11,414
2015	20,481	19,145	18,394	17,789	15,379
2016	4,003	4,529	5,868	8,199	21,345
TOTAL	64,209	60,241	60,152	61,164	67,122
Change		(3,968)	(89)	1,012	

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 Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
349.1%	2004	36	36	36	36	36
94.3%	2005	7	4	4	4	4
86.5%	2006	96	113	113	113	113
102.5%	2007	(100)	331	324	318	276
101.5%	2008	61	23	23	23	23
94.1%	2009	140	138	135	132	116
85.1%	2010	819	917	899	881	765
85.1%	2011	2,344	2,278	2,232	2,187	1,898
101.1%	2012	3,330	3,033	2,972	2,913	2,528
102.0%	2013	10,387	9,591	9,399	9,211	7,997
109.3%	2014	12,307	10,073	9,922	9,724	8,444
101.4%	2015	16,036	15,041	14,515	14,007	12,161
95.4%	2016	3,399	3,539	4,496	6,490	16,601
	TOTAL	48,862	45,117	45,070	46,039	50,962
	Change		(3,745)	(47)	969	

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 Jan. 2016	Actual Feb. 2016	Projected Mar. 2016	Projected Apr. 2016	Projected Dec. 2016
(1) unearned premium (UP)	38,329	39,253	39,912	41,960	49,918
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	103.6%	103.6%	103.7%	103.8%	105.4%
(3) expected future costs {(1) x (2)}	39,713	40,670	41,380	43,546	52,613
(4) premium deficiency / (deferred policy acquisition cost)	1,384	1,417	1,468	1,586	2,695
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	95.9%	95.9%	96.0%	96.1%	97.6%
(6) expected future costs {(1) x (5)}	36,776	37,662	38,319	40,324	48,721
(7) premium deficiency / (deferred policy acquisition cost)	(1,553)	(1,591)	(1,593)	(1,636)	(1,197)

EXHIBIT D
Projected Year-end Policy Liabilities

The table below presents the projected policy liabilities as at December 31, 2016, broken down by component.

Alberta non-Grid	Projected Balances as at Dec. 31, 2016 (\$000s)							
ending 2016	nominal values			actuarial present value adjustments (apvs)				
Acc Yr	Case	IBNR	Total Unpaid	discount	investment PfAD	development PfAD	Total apvs	TOTAL
2004	26	36	62	-	-	6	6	68
2005	659	4	663	-	-	66	66	729
2006	733	113	846	(11)	3	84	76	922
2007	1,323	276	1,599	(22)	6	158	142	1,741
2008	1,501	23	1,524	(23)	8	150	135	1,659
2009	2,244	116	2,360	(38)	12	232	206	2,566
2010	3,553	765	4,318	(69)	22	425	378	4,696
2011	6,712	1,898	8,610	(181)	60	843	722	9,332
2012	12,810	2,528	15,338	(322)	107	1,502	1,287	16,625
2013	12,793	7,997	20,790	(457)	146	2,521	2,210	23,000
2014	19,574	8,444	28,018	(672)	224	3,418	2,970	30,988
2015	22,065	12,161	34,226	(890)	274	3,834	3,218	37,444
PAYs (sub-total):	83,993	34,361	118,354	(2,685)	862	13,239	11,416	129,770
CAY (2016)	33,201	16,601	49,802	(1,195)	349	5,590	4,744	54,546
claims liabilities:	117,194	50,962	168,156	(3,880)	1,211	18,829	16,160	184,316
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	development PfAD	Total apvs	TOTAL
premium liabilities:	49,918	(1,197)	48,721	(872)	242	4,522	3,892	52,613
*Total may not be sum of parts, as apvs apply to future costs within UPR								
policy liabilities:			216,877	(4,752)	1,453	23,351	20,052	236,929

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, 2015 from the valuation), followed by the selected discount rate and the associated margin for investment income.

Selected Claims Development MfADs (Sep. 30, 2015)				
Accident Year	Third Party Liability	Accident Benefits	Other Coverages	Total
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%	5.0%	10.0%
2008	10.0%	10.0%	9.6%	10.0%
2009	10.0%	10.0%	5.0%	10.0%
2010	10.0%	10.0%	9.6%	10.0%
2011	10.0%	10.0%	9.9%	10.0%
2012	10.0%	10.0%	10.0%	10.0%
2013	12.5%	10.0%	12.5%	12.4%
2014	12.4%	10.0%	12.5%	12.5%
2015	12.1%	10.0%	6.8%	11.5%
2016	12.5%	10.0%	12.5%	12.5%
prem liab	11.7%	10.0%	5.2%	9.5%
discount rate:				0.78%
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, 2015 from the latest valuation date (projections in exhibits A to D are to Dec. 31, 2016 and based on more up-to-date information). We have included both the current valuation selection (0.78%) and the prior valuation assumption (0.97%) for comparative purposes. A 25 basis point margin for investment return adverse deviation is used in all scenarios presented.

\$ Format: \$000s

AY	Actuarial Present Value of Provisions at Various Discount Rates - Dec. 31, 2015 projected Unpaid							
	0.28%	0.78%	0.97%	1.28%	1.78%	2.28%	2.78%	3.28%
2004	-	-	-	-	-	-	-	-
2005	749	742	740	736	730	724	718	713
2006	1,529	1,515	1,510	1,501	1,488	1,475	1,462	1,450
2007	2,987	2,958	2,947	2,929	2,901	2,874	2,847	2,822
2008	4,847	4,795	4,776	4,744	4,696	4,648	4,601	4,556
2009	3,958	3,916	3,900	3,874	3,834	3,795	3,757	3,720
2010	6,930	6,838	6,803	6,748	6,660	6,575	6,492	6,412
2011	12,996	12,820	12,754	12,649	12,485	12,323	12,166	12,014
2012	22,733	22,405	22,280	22,085	21,779	21,478	21,185	20,904
2013	29,948	29,485	29,309	29,033	28,601	28,177	27,768	27,371
2014	38,813	38,157	37,906	37,517	36,902	36,302	35,721	35,161
2015	56,842	55,954	55,617	55,089	54,265	53,457	52,675	51,925
Total	182,332	179,585	178,542	176,905	174,341	171,828	169,392	167,048
		valuation assumption	prior val assumption					

AY	Dollar Impact Relative to Valuation Assumption							
	0.28%	0.78%	0.97%	1.28%	1.78%	2.28%	2.78%	3.28%
Total	2,747	-	(1,043)	(2,680)	(5,244)	(7,757)	(10,193)	(12,537)
		valuation assumption	prior val assumption					

AY	Percentage Impact Relative to Valuation Assumption							
	0.28%	0.78%	0.97%	1.28%	1.78%	2.28%	2.78%	3.28%
2004	-	-	-	-	-	-	-	-
2005	0.9%	-	(0.3%)	(0.8%)	(1.6%)	(2.4%)	(3.2%)	(3.9%)
2006	0.9%	-	(0.3%)	(0.9%)	(1.8%)	(2.6%)	(3.5%)	(4.3%)
2007	1.0%	-	(0.4%)	(1.0%)	(1.9%)	(2.8%)	(3.8%)	(4.6%)
2008	1.1%	-	(0.4%)	(1.1%)	(2.1%)	(3.1%)	(4.0%)	(5.0%)
2009	1.1%	-	(0.4%)	(1.1%)	(2.1%)	(3.1%)	(4.1%)	(5.0%)
2010	1.3%	-	(0.5%)	(1.3%)	(2.6%)	(3.8%)	(5.1%)	(6.2%)
2011	1.4%	-	(0.5%)	(1.3%)	(2.6%)	(3.9%)	(5.1%)	(6.3%)
2012	1.5%	-	(0.6%)	(1.4%)	(2.8%)	(4.1%)	(5.4%)	(6.7%)
2013	1.6%	-	(0.6%)	(1.5%)	(3.0%)	(4.4%)	(5.8%)	(7.2%)
2014	1.7%	-	(0.7%)	(1.7%)	(3.3%)	(4.9%)	(6.4%)	(7.9%)
2015	1.6%	-	(0.6%)	(1.5%)	(3.0%)	(4.5%)	(5.9%)	(7.2%)
Total	1.5%	-	(0.6%)	(1.5%)	(2.9%)	(4.3%)	(5.7%)	(7.0%)
		valuation assumption	prior val assumption					

EXHIBIT G

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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 Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation				
2004	42	-	-	-	-	-	42	
2005	89	(2)	(2)	-	(4)	(4.5%)	85	
2006	191	(2)	18	-	16	8.4%	207	
2007	129	(3)	379	-	376	291.5%	505	
2008	239	(5)	(47)	-	(52)	(21.8%)	187	
2009	397	(9)	2	-	(7)	(1.8%)	390	
2010	1,339	(26)	65	-	39	2.9%	1,378	
2011	3,265	(67)	(35)	-	(102)	(3.1%)	3,163	
2012	4,929	(98)	(223)	-	(321)	(6.5%)	4,608	
2013	13,126	(263)	(568)	-	(831)	(6.3%)	12,295	
2014	15,979	(258)	(2,014)	-	(2,272)	(14.2%)	13,707	
2015	20,481	(470)	(866)	-	(1,336)	(6.5%)	19,145	
2016	4,003	1,504	(978)	-	526	13.1%	4,529	
Grand Total	64,209	301	(4,269)	-	(3,968)	(6.2%)	60,241	

EXHIBIT G

Page 2 of 2

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

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

IBNR - in \$000s

AccYear	Values				Sum of Total Change	Sum of % Total Change	Sum of Current Month Final Amount
	Sum of Prior Month Actual Amount	Sum of Projected Change	Sum of Change Due to AvsP Variances	Sum of Change Due to Valuation Implementation			
2004	36	-	-	-	-	-	36
2005	7	-	(3)	-	(3)	(42.9%)	4
2006	96	-	17	-	17	17.7%	113
2007	(100)	2	429	-	431	(431.0%)	331
2008	61	(1)	(37)	-	(38)	(62.3%)	23
2009	140	(3)	1	-	(2)	(1.4%)	138
2010	819	(16)	114	-	98	12.0%	917
2011	2,344	(47)	(19)	-	(66)	(2.8%)	2,278
2012	3,330	(67)	(230)	-	(297)	(8.9%)	3,033
2013	10,387	(208)	(588)	-	(796)	(7.7%)	9,591
2014	12,307	(185)	(2,049)	-	(2,234)	(18.2%)	10,073
2015	16,036	(160)	(835)	-	(995)	(6.2%)	15,041
2016	3,399	1,071	(931)	-	140	4.1%	3,539
Grand Total	48,862	386	(4,131)	-	(3,745)	(7.7%)	45,117