



**ONTARIO RISK SHARING POOL**

**FEBRUARY 2021 OPERATIONAL REPORT**

**ACTUARIAL HIGHLIGHTS**

Related Bulletin: [F2021-019\\_ON\\_RSP\\_February\\_2021\\_Operational\\_Report](#)

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**ACTUARIAL HIGHLIGHTS****RSP ONTARIO****OPERATIONAL REPORT****FEBRUARY 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 March 2021 participation 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 February 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.

<b>ONTARIO RISK SHARING POOL            FISCAL YEAR 2021 – SCHEDULE OF VALUATIONS</b>			
<b>Valuation Date</b>	<b>Discount Rate (per annum)</b>	<b>Operational Report</b>	<b>Description of Changes</b>
Sep. 30, 2020 (completed)	0.26% mfad <sup>1</sup> 25 bp	Oct. 2020	update valuation (roll-forward): accident year 2020 loss ratio <u>decreased</u> 5.0 points to 90.4 %; discount rate <u>decreased</u> 3 basis points; no change to selected margins for adverse deviations
Dec. 31, 2020	% mfad -- bp	Mar. 2021	update valuation:
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 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.

<sup>1</sup> 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%.

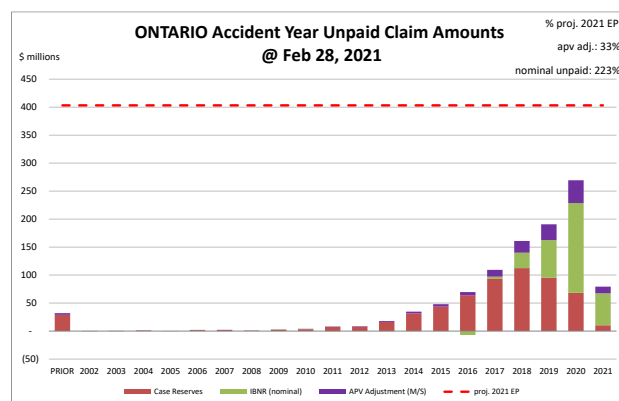
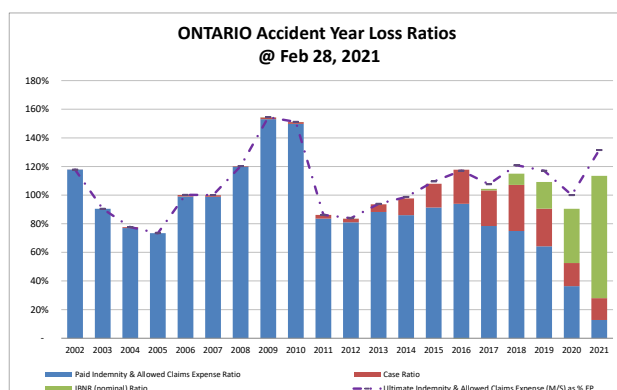
### 1.3 Consideration of Recent Legal Decisions and Changes in Legislation / Regulation<sup>2</sup>

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 (i.e. within the last five years) are provided below.

In **Tomec v Economical Mutual Insurance Company (2019 ONCA 882)**, the Ontario Court of Appeal set aside the Divisional Court judicial review and decision of the Licence and Appeal Tribunal to deny enhanced housekeeping and attendant care benefits. The unanimous panel concluded that the rule of discoverability applied to s. 281.1(1) of the Insurance Act and to s. 51(1) of the old Statutory Accident Benefits Schedule such that the two-year limitation period to dispute benefits could not run before an insured was determined to be catastrophically impaired (CAT). On June 4<sup>th</sup>, 2020, the Supreme Court of Canada dismissed the insurer's application to appeal the Ontario Court of Appeal's decision in this matter. At the current time, no adjustments have been made to our valuation estimates as a result of this decision, however, we will continue to monitor and reassess with the next valuation.

### 1.4 Current Provision Summary

The following charts show the current levels of claim liabilities<sup>3</sup> booked by accident year<sup>4</sup>. The left chart displays life-to-date payments, case reserves, IBNR, and the total including actuarial present value adjustments against accident year earned premium. The right chart shows the associated dollar amounts for the components of the claim liabilities and the current projected amount of 2021 full year earned premium (the red hash-mark line) to provide some perspective.



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

The current actuarial present value adjustments provision for claims liabilities (\$134.0 million – see the following table) represents 33.0% 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

<sup>2</sup>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>.

<sup>3</sup>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.

<sup>4</sup>The loss ratio chart has been limited to show the most recent 20 accident years; the unpaid provision chart has been limited to show the most recent 20 accident years, and show all accident years older than 20 years collectively as "PRIOR".

released into the net operating result over future periods.

claim liabilities (\$000s)

	amt	%
case	589,960	57.1%
ibnr	308,866	29.9%
M/S apv adjust.	134,023	13.0%
M/S total	1,032,849	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 2020 and 2021 (see Exhibit B). Approximately 78% 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 5% 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	198,551	77.6%
prem def/(dpac)	27,357	10.7%
M/S apv adjust.	29,810	11.7%
M/S total	255,718	100.0%

policy liabilities (\$000s)

	amt	%
claim	898,826	69.8%
premium	225,908	17.5%
M/S apv adjust.	163,833	12.7%
M/S total	1,288,567	100.0%

## 2 Activity during the Month of February 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<sup>5</sup>.

*Ontario 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	(37)	(37)	10,068	5	(5,562)	2,697	4,507	2,703
2019	(309)	(309)	1,849	(293)	768	91	2,617	(202)
2020	(469)	(469)	5,862	(12)	(1,108)	(3,509)	4,754	(3,521)
2021	31,478	(1,611)	6,455	(2,630)	5,115	(5,441)	11,570	(8,071)
TOTAL	30,664	(2,426)	24,234	(2,930)	(786)	(6,161)	23,448	(9,091)

(Recorded transaction amounts exclude IBNR & other actuarial provisions)

It is unusual to see large actual earned premium transactions affecting prior accident years beyond the first prior accident year. We have identified that the prior accident years changes in the month reflects system sweep activity undertaken by one member in responding to audit findings.

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

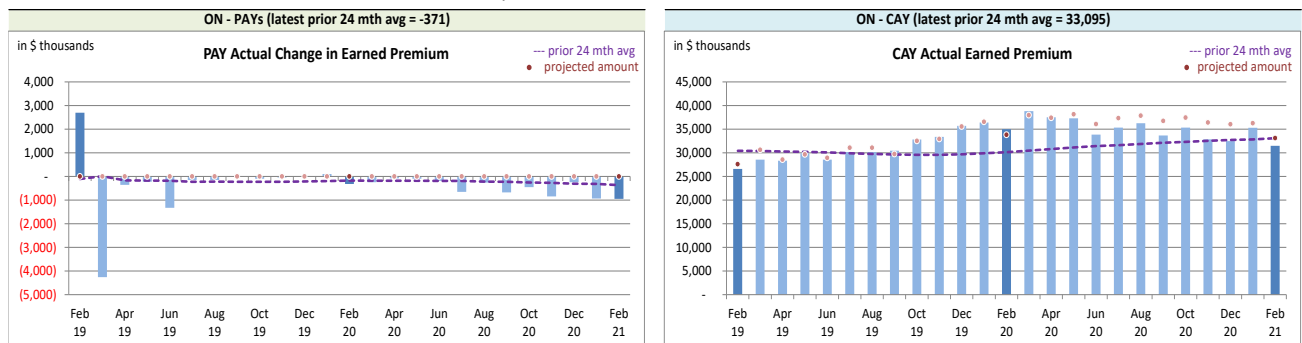
<sup>5</sup>There may be rounding differences in values in this document compared with the associated Bulletin and/or Operational Report.

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**<sup>6</sup> 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.

*Ontario RSP Actual Earned Premium by Calendar Month*



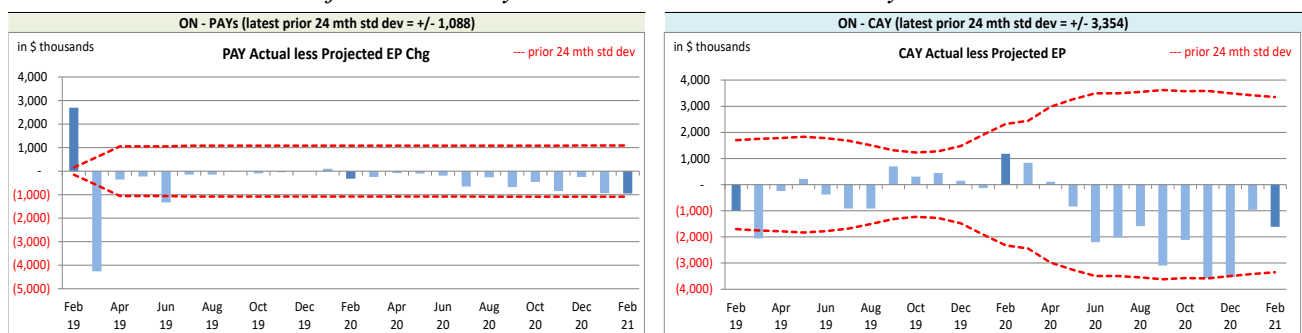
**Earned premium** changes during a given calendar month in relation to prior accident years tend to be at modest levels (note the different scales in the preceding charts), although relatively high levels generally occur at the beginning of each year.

On Latest \$ thousands		
	Earned Premium	PAYs CAY
Mthly Avg EP Chg (prior 24 mths)	(371)	33,095
std dev	1,088	3,354
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

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

*Ontario RSP Actual vs. Projected Summary: Earned Premium Variances by Calendar Month*



We project **earned premium** changes from known unearned premium balances and projected written premium levels, but upload the total projections as current accident year (CAY). This process has

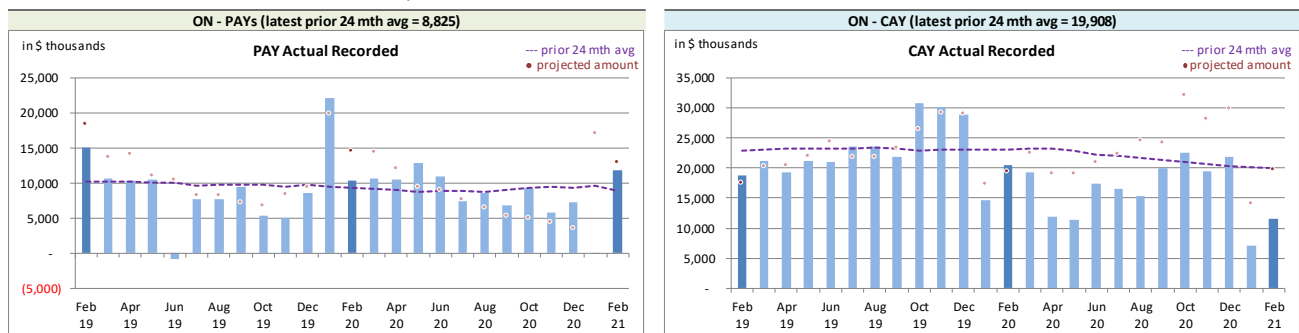
<sup>6</sup>Premium is earned on a daily basis based on the transaction term measured in days. As a result, months with 31 days earned relatively more than those with 30 days, and February earns the least.

generated prior accident years' (PAYs) bias<sup>7</sup>, with actuals generally lower than projected, although the magnitude is not high relative to monthly premium. Readers will also note the significant fluctuations in the CAY standard deviation band, reflecting significant volume changes and the impact as those changes were earned.

## 2.1.b AvsP: Recorded Indemnity & Allowed Claims Expense

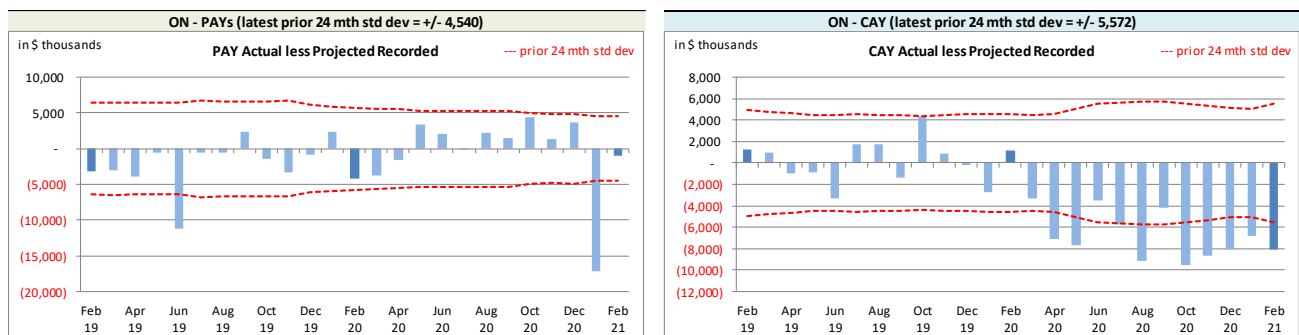
The following charts show actual **recorded** activity (**paid** and **case reserve** changes), in each of the most recent 25 calendar months, along with a “prior 24-month average” to show how each month’s actual compares with the average amount of the preceding 24 calendar months.

*Ontario 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.

*Ontario RSP Actual vs Projected Summary: Recorded Variances by Calendar Month*



On Latest \$ thousands			
	<b>Recorded</b>	PAYs	CAY
Mthly Avg Recorded (prior 24 mths)		8,825	19,908
std dev		4,540	5,572
A-P <> std dev		2	9
% <> std dev		8.0%	36.0%
norm <> std dev		31.7%	31.7%
performance vs 24-mth avg:		better	no better

With respect to **recorded** indemnity & allowed claims expense, 8% 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

<sup>7</sup>The PAYs' variances will show bias as the projection upload forces all earned premium projections to be attributed to the CAY.

distribution). Bias<sup>8</sup> has not been indicated at a 95% confidence level on a rolling 25-month basis (9 of 25 variances were positive).

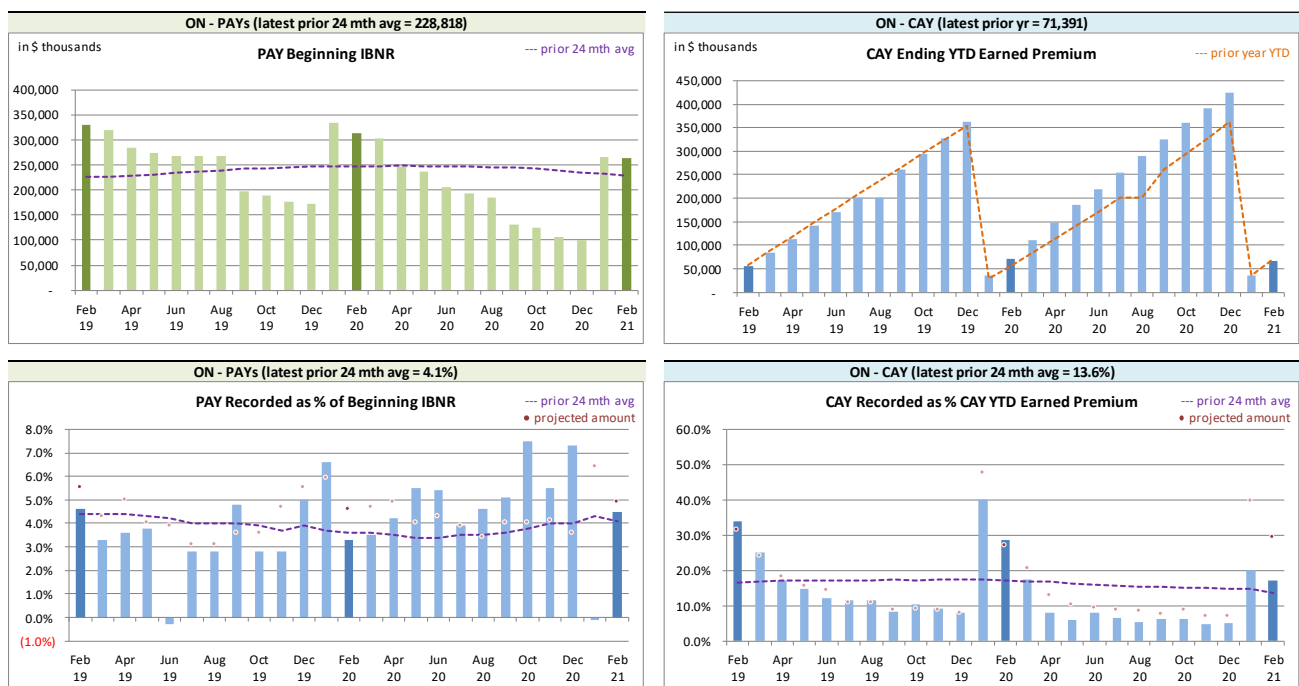
The current accident year (CAY) **recorded** variances (preceding ~~chart~~ table on the left) fell outside of one standard deviation 36% of the time over the last 25 calendar months suggesting that the projection process has performed no better than simply projecting the prior 24-month average amount. Bias has been indicated at a 95% confidence level on a rolling 25-month basis (7 of 25 variances were 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 the reduction in transferred written premium and 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 additional charts related to levels influencing **recorded** activity. Note in particular the reduction in the level of PAY beginning IBNR over the months, as a response to valuations and showing up as a beginning IBNR change one month after a valuation is implemented (i.e. April, June, September, and November).

#### *Ontario RSP Levels that influence<sup>9</sup> 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:

<sup>8</sup> For the binomial distribution with 25 trials and an assumed 50% success probability, the 95% confidence range is 8 to 17 successes. That is, favourable or unfavourable counts of 0 to 7 or 18 to 25 out of 25 outcomes would suggest bias.

<sup>9</sup> 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

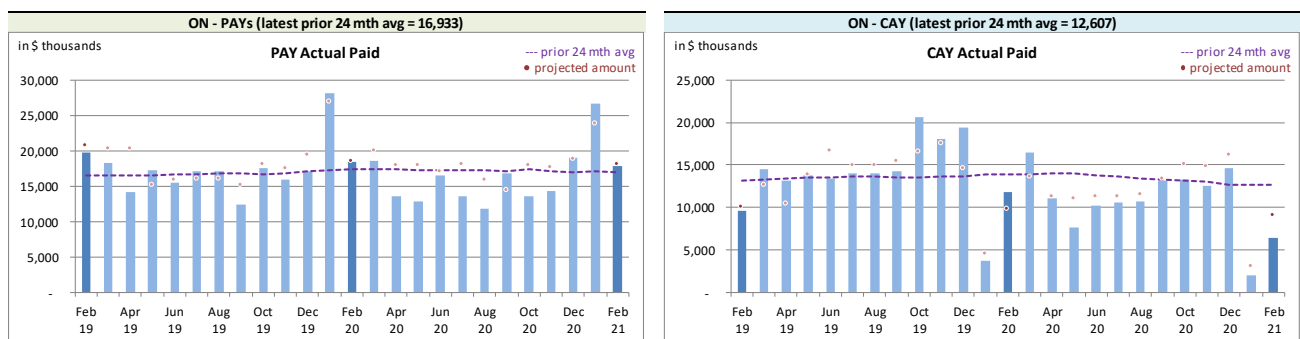


- to offset actual **recorded** activity (through loss ratio matching);
- the annual switchover as a CAY becomes a PAY (occurs in January); and
- when a new valuation is implemented, where the valuation resulted in changes to the selection of PAYs' ultimates (will show up as a beginning IBNR change one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

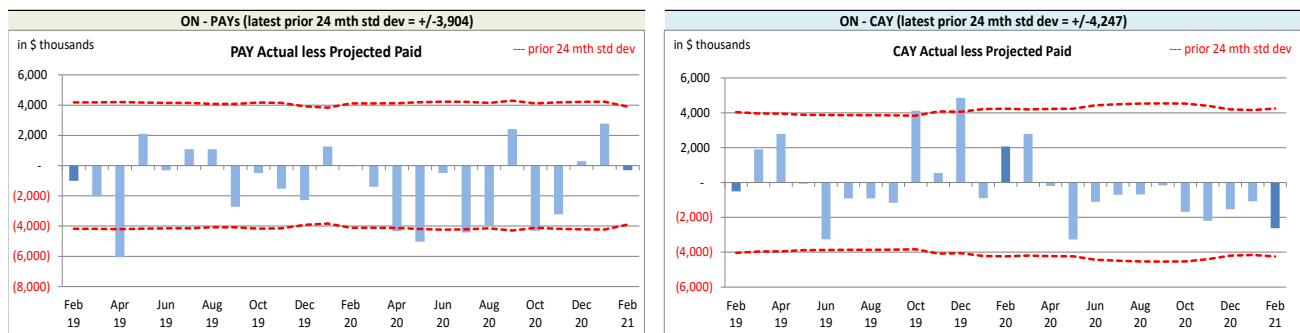
The following charts show actual **paid** activity in each of the most recent 25 calendar months, along with a "prior 24-month average" to show how each month's actual compares with the average amount of the preceding 24 calendar months.

*Ontario 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.

*Ontario RSP Actual vs Projected Summary: **Paid** Variances by Calendar Month*



(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.

On Latest \$ thousands		
	<b>Paid</b>	
Mthly Avg Paid (prior 24 mths)	16,933	12,607
std dev	3,904	4,247
A-P <> std dev	5	2
% <> std dev	20.0%	8.0%
norm <> std dev	31.7%	31.7%
performance vs 24-mth avg:	better	better

With respect to **paid** indemnity & allowed claims expense, 20% of the prior accident years' (PAYs) variances over the last 25 calendar months have fallen outside of one standard deviation of the actual **paid** amounts (see table on left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount (assuming it follows a normal distribution). Bias has been indicated at a 95% confidence level on a rolling 25-month basis (7 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 (preceding table on the left), suggesting the projection process has performed better than simply projecting the prior 24-month average amount. Bias has been indicated at a 95% confidence level on a rolling 25-month basis (7 of 25 variances are positive).

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

### Ontario RSP Levels that influence<sup>10</sup> 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);

<sup>10</sup>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.

- 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<sup>11</sup>, 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 and the associated one-month projections from last month's Report.

*Ontario RSP Actual vs Projected Summary: IBNR and APV Amounts (\$ thousands)*

Table 02		actuarial present value adjustments					
Accident Year	IBNR		Discount Amount		Provisions for Adverse Deviations		IBNR + actuarial present value adjustments
	Actual	Actual less Projected	Actual	Actual less Projected	Actual	Actual less Projected	Actual Actual less Projected
Prior	23,965	(2,895)	(3,213)	-	56,292	18	77,044 (2,877)
2019	67,511	(135)	(1,138)	1	29,235	(9)	95,608 (143)
2020	160,323	3,096	(1,829)	4	42,659	(77)	201,153 3,023
2021	57,067	6,242	(538)	(6)	12,555	149	69,084 6,385
TOTAL	308,866	6,308	(6,718)	(1)	140,741	81	442,889 6,388

The IBNR provision is \$6.3 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:

- the change projected last month;
- 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
- 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

<sup>11</sup>For ease of discussion, "IBNR" is used in place of "provisions for incurred but not recorded (IBNR) and development".

positive 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.

*Ontario 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:	27,357	(1,572)	29,810	(1,684)	57,167	(3,256)
balance as % unearned premium:	13.8%	-	15.0%	-	28.8%	-
actual unearned premium:	198,551					
less projected:		(11,188)				

### 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<sup>12</sup> 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<sup>13</sup>, 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 116.8% rather than 113.5% (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 Ontario RSP Summary of Operations due to rounding.)

<sup>12</sup>“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).

<sup>13</sup>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.

*Ontario 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	(1,856)	(2.9%)	(6,876)	(10.6%)	(8,732)	(13.5%)	(3,624)	1.4%
CAY	75,766	116.8%	12,017	18.5%	87,783	135.3%	40,955	(1.1%)
TOTAL	73,910	113.9%	5,141	7.9%	79,051	121.9%	37,331	0.4%

(“% 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 presented in section 6, Exhibit B, refer to the estimates derived on the basis of various actuarial methodologies applied to the experience of the Ontario Risk Sharing Pool for the purposes of the most recent quarterly valuation. As discussed in section 3, IBNR 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 Jan. 2021	Actual Feb. 2021	Projected Mar. 2021	Projected Apr. 2021	Projected Dec. 2021
	prior	3,032	2,963	2,871	2,809	2,265
	2002	(50)	(50)	(47)	(47)	(35)
	2003	16	16	15	15	11
	2004	19	18	19	18	20
	2005	(43)	(43)	(41)	(41)	(29)
	2006	196	192	186	182	145
	2007	203	201	195	190	153
	2008	72	80	77	75	61
	2009	738	726	693	683	524
	2010	604	604	579	570	442
	2011	(35)	(34)	(15)	(22)	24
	2012	1,138	1,188	1,143	1,123	878
	2013	1,219	1,032	1,015	987	825
	2014	3,280	2,839	2,763	2,698	2,190
	2015	4,068	4,098	3,985	3,895	3,149
discount rate 0.26%	2016	(669)	(1,449)	(1,223)	(1,277)	(588)
	2017	16,841	16,270	15,938	15,317	11,521
	2018	52,285	48,393	46,516	44,720	33,560
interest rate margin 25 basis pts	2019	98,939	95,608	91,580	87,466	66,164
	2020	207,454	201,153	192,320	184,977	141,205
	2021	39,699	69,084	94,301	119,655	259,262
	<b>TOTAL</b>	<b>429,006</b>	<b>442,889</b>	<b>452,870</b>	<b>463,993</b>	<b>521,747</b>
	Change		13,883	9,981	11,123	

*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. 2021	Actual Feb. 2021	Projected Mar. 2021	Projected Apr. 2021	Projected Dec. 2021
-	prior	108	51	47	46	39
117.8%	2002	(51)	(51)	(48)	(48)	(36)
90.4%	2003	14	14	13	13	9
77.5%	2004	(71)	(72)	(68)	(67)	(48)
73.4%	2005	(43)	(43)	(41)	(41)	(29)
100.1%	2006	20	17	16	16	11
99.9%	2007	(1)	(2)	(2)	(2)	(2)
120.2%	2008	4	12	11	11	9
154.4%	2009	447	439	415	411	305
151.1%	2010	252	252	238	236	174
86.0%	2011	(687)	(681)	(644)	(638)	(471)
83.6%	2012	337	404	382	378	278
93.4%	2013	(337)	(514)	(486)	(481)	(356)
97.6%	2014	63	(261)	(247)	(245)	(180)
107.9%	2015	(411)	(216)	(204)	(202)	(149)
115.0%	2016	(6,577)	(7,098)	(6,708)	(6,641)	(4,906)
104.4%	2017	4,483	4,192	4,150	3,942	2,932
114.9%	2018	31,114	27,522	26,146	24,839	17,723
109.2%	2019	70,465	67,511	63,933	60,289	43,020
90.4%	2020	165,502	160,323	152,307	145,605	106,670
113.5%	2021	32,909	57,067	77,341	97,635	197,693
	<b>TOTAL</b>	<b>297,540</b>	<b>308,866</b>	<b>316,551</b>	<b>325,056</b>	<b>362,686</b>
	Change		11,326	7,685	8,505	

*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. 2021	Actual Feb. 2021	Projected Mar. 2021	Projected Apr. 2021	Projected Dec. 2021
(1) unearned premium (UP)	204,685	198,551	193,712	187,721	226,584
FOR MEMBER SHARING					
(2) expected future costs ratio {% of (1)}	128.7%	128.8%	128.9%	129.1%	132.6%
(3) expected future costs {(1) x (2)}	263,502	255,718	249,725	242,326	300,370
(4) premium deficiency / (deferred policy acquisition cost)	58,817	57,167	56,013	54,605	73,786
Excluding Actuarial Present Value Adjustments					
(5) expected future costs ratio {% of (1)}	113.7%	113.8%	113.9%	114.0%	117.1%
(6) expected future costs {(1) x (5)}	232,784	225,908	220,612	214,077	265,352
(7) premium deficiency / (deferred policy acquisition cost)	28,099	27,357	26,900	26,356	38,768

## EXHIBIT D

### Projected Year-end Policy Liabilities

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

Ontario		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
prior	22,249	39	22,288	(110)	110	2,236	(10)	2,226	2,226
2002	47	(36)	11	-	-	1	-	1	1
2003	8	9	17	-	-	2	-	2	2
2004	741	(48)	693	(6)	6	69	(1)	68	68
2005	27	(29)	(2)	-	-	-	-	-	-
2006	1,339	11	1,350	(15)	15	135	(1)	134	134
2007	1,574	(2)	1,572	(20)	20	157	(2)	155	155
2008	517	9	526	(8)	8	53	(1)	52	52
2009	1,916	305	2,221	(33)	33	222	(3)	219	219
2010	2,589	174	2,763	(47)	44	276	(5)	271	268
2011	5,563	(471)	5,092	(92)	87	509	(9)	500	495
2012	5,808	278	6,086	(91)	91	609	(9)	600	600
2013	12,326	(356)	11,970	(156)	156	1,197	(16)	1,181	1,181
2014	24,139	(180)	23,959	(264)	264	2,396	(26)	2,370	2,370
2015	33,395	(149)	33,246	(266)	266	3,325	(27)	3,298	3,298
2016	48,345	(4,906)	43,439	(261)	261	4,344	(26)	4,318	4,318
2017	66,197	2,932	69,129	(415)	415	8,641	(52)	8,589	8,589
2018	88,498	17,723	106,221	(637)	637	15,933	(96)	15,837	15,837
2019	90,930	43,020	133,950	(938)	938	23,307	(163)	23,144	23,144
2020	86,743	106,670	193,413	(1,547)	1,547	34,814	(279)	34,535	34,535
PAYs (sub-total):	492,951	164,993	657,944	(4,906)	4,898	98,226	(726)	97,500	97,492
CAY (2021)	147,119	197,693	344,812	(2,758)	2,758	62,066	(497)	61,569	61,569
claims liabilities:	640,070	362,686	1,002,756	(7,664)	7,656	160,292	(1,223)	159,069	159,061
	Unearned Premium	Premium Deficiency / (DPAC)	Total Provision	discount	investment PfAD	nominal development PfAD	development PfAD discount	development PfAD	Total apvs
premium liabilities:	226,584	38,768	265,352	(1,589)	1,589	35,229	(211)	35,018	35,018
*Total may not be sum of parts, as apvs apply to future costs within UPR									
policy liabilities:			1,268,108	(9,253)	9,245	195,521	(1,434)	194,087	194,079

## 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
1993	10.0%	10.0%	10.0%	10.0%
1994	10.0%	10.0%	10.0%	10.0%
1995	10.0%	10.0%	10.0%	10.0%
1996	10.0%	10.0%	10.0%	10.0%
1997	10.0%	10.0%	10.0%	10.0%
1998	10.0%	10.0%	10.0%	10.0%
1999	10.0%	10.0%	10.0%	10.0%
2000	10.0%	10.0%	10.0%	10.0%
2001	10.0%	10.0%	10.0%	10.0%
2002	10.0%	10.0%	10.0%	10.0%
2003	10.0%	10.0%	10.0%	10.0%
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%	9.9%	10.0%
2015	10.0%	10.0%	9.8%	10.0%
2016	10.0%	10.0%	9.9%	10.0%
2017	12.5%	12.5%	12.5%	12.5%
2018	15.0%	15.0%	14.5%	15.0%
2019	17.4%	17.5%	14.4%	17.4%
2020	17.5%	20.0%	6.0%	18.0%
2021	12.7%	20.0%	5.2%	13.3%
prem liab	12.7%	20.0%	5.2%	13.3%

discount rate: 0.26%  
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 (0.26%), the prior valuation assumption (0.29%) and the prior fiscal year end valuation assumption (1.41%) 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, 2020 projected Unpaid							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
2002 & prior	30,475	30,475	30,451	30,080	29,717	29,364	30,428	29,609
2003	8	8	8	8	8	8	8	8
2004	1,042	1,042	1,041	1,021	1,002	983	1,040	996
2005	43	43	43	42	42	41	43	41
2006	1,960	1,960	1,957	1,908	1,861	1,815	1,954	1,847
2007	2,290	2,290	2,286	2,223	2,161	2,103	2,282	2,144
2009	3,210	3,210	3,204	3,101	3,002	2,909	3,197	2,974
2010	3,814	3,814	3,806	3,675	3,550	3,433	3,797	3,514
2011	7,377	7,377	7,364	7,148	6,944	6,753	7,350	6,885
2012	8,702	8,702	8,688	8,468	8,259	8,064	8,673	8,199
2013	17,592	17,592	17,569	17,213	16,873	16,555	17,546	16,775
2014	33,451	33,451	33,419	32,922	32,445	31,998	33,386	32,309
2015	48,918	48,918	48,883	48,303	47,748	47,225	48,844	47,589
2016	66,168	66,168	66,121	65,388	64,683	64,010	66,078	64,479
2017	118,570	118,570	118,471	117,076	115,732	114,441	118,377	115,344
2018	164,899	164,899	164,718	162,569	160,495	158,499	164,575	159,881
2019	196,066	196,066	195,793	192,888	190,025	187,326	195,602	189,204
2020	278,852	278,852	278,455	274,387	270,420	266,603	278,187	269,271
Total	984,276	984,276	983,114	969,233	955,756	942,897	982,202	951,851
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Dollar Impact Relative to Valuation Assumption							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
Total	1,162	1,162	-	(13,881)	(27,358)	(40,217)	(912)	(31,263)
	curr - 100 bp	curr - 50 bp	curr val assumption	curr + 50bp	curr + 100bp	curr + 150bp	prior val assumption	prior fyr end assumption

AY	Percentage Impact Relative to Valuation Assumption							
	0.00%	0.00%	0.26%	0.76%	1.26%	1.76%	0.29%	1.41%
2002 & prior	0.1%	0.1%	-	(1.2%)	(2.4%)	(3.6%)	(0.1%)	(2.8%)
2003	-	-	-	-	-	-	-	-
2004	0.1%	0.1%	-	(1.9%)	(3.7%)	(5.6%)	(0.1%)	(4.3%)
2005	-	-	-	(2.3%)	(2.3%)	(4.7%)	-	(4.7%)
2006	0.2%	0.2%	-	(2.5%)	(4.9%)	(7.3%)	(0.2%)	(5.6%)
2007	0.2%	0.2%	-	(2.8%)	(5.5%)	(8.0%)	(0.2%)	(6.2%)
2009	0.2%	0.2%	-	(3.2%)	(6.3%)	(9.2%)	(0.2%)	(7.2%)
2010	0.2%	0.2%	-	(3.4%)	(6.7%)	(9.8%)	(0.2%)	(7.7%)
2011	0.2%	0.2%	-	(2.9%)	(5.7%)	(8.3%)	(0.2%)	(6.5%)
2012	0.2%	0.2%	-	(2.5%)	(4.9%)	(7.2%)	(0.2%)	(5.6%)
2013	0.1%	0.1%	-	(2.0%)	(4.0%)	(5.8%)	(0.1%)	(4.5%)
2014	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.3%)
2015	0.1%	0.1%	-	(1.2%)	(2.3%)	(3.4%)	(0.1%)	(2.6%)
2016	0.1%	0.1%	-	(1.1%)	(2.2%)	(3.2%)	(0.1%)	(2.5%)
2017	0.1%	0.1%	-	(1.2%)	(2.3%)	(3.4%)	(0.1%)	(2.6%)
2018	0.1%	0.1%	-	(1.3%)	(2.6%)	(3.8%)	(0.1%)	(2.9%)
2019	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.4%)
2020	0.1%	0.1%	-	(1.5%)	(2.9%)	(4.3%)	(0.1%)	(3.3%)
Total	0.1%	0.1%	-	(1.4%)	(2.8%)	(4.1%)	(0.1%)	(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

Page 1 of 2

Components of Member Statement IBNR (i.e. “Discounted”) Change During Month

RSP **Ontario**  
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			
prior	3,032	(76)	7	-	(69)	(2.3%)	2,963
2002	(50)	1	(1)	-	-	-	(50)
2003	16	-	-	-	-	-	16
2004	19	(2)	1	-	(1)	(5.3%)	18
2005	(43)	-	-	-	-	-	(43)
2006	196	(5)	1	-	(4)	(2.0%)	192
2007	203	(5)	3	-	(2)	(1.0%)	201
2008	72	(1)	9	-	8	11.1%	80
2009	738	(11)	(1)	-	(12)	(1.6%)	726
2010	604	(11)	11	-	-	-	604
2011	(35)	(9)	10	-	1	(2.9%)	(34)
2012	1,138	(22)	72	-	50	4.4%	1,188
2013	1,219	(34)	(153)	-	(187)	(15.3%)	1,032
2014	3,280	(78)	(363)	-	(441)	(13.4%)	2,839
2015	4,068	(103)	133	-	30	0.7%	4,098
2016	(669)	(75)	(705)	-	(780)	116.6%	(1,449)
2017	16,841	(533)	(38)	-	(571)	(3.4%)	16,270
2018	52,285	(2,029)	(1,863)	-	(3,892)	(7.4%)	48,393
2019	98,939	(3,188)	(143)	-	(3,331)	(3.4%)	95,608
2020	207,454	(9,324)	3,023	-	(6,301)	(3.0%)	201,153
2021	39,699	23,000	6,385	-	29,385	74.0%	69,084
<b>Grand Total</b>	<b>429,006</b>	<b>7,495</b>	<b>6,388</b>	<b>-</b>	<b>13,883</b>	<b>3.2%</b>	<b>442,889</b>

EXHIBIT G

Page 2 of 2

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

RSP **Ontario**  
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			
prior	108	(2)	(55)	-	(57)	(52.8%)	51
2002	(51)	1	(1)	-	-	-	(51)
2003	14	-	-	-	-	-	14
2004	(71)	1	(2)	-	(1)	1.4%	(72)
2005	(43)	-	-	-	-	-	(43)
2006	20	-	(3)	-	(3)	(15.0%)	17
2007	(1)	-	(1)	-	(1)	100.0%	(2)
2008	4	-	8	-	8	200.0%	12
2009	447	(4)	(4)	-	(8)	(1.8%)	439
2010	252	(3)	3	-	-	-	252
2011	(687)	7	(1)	-	6	(0.9%)	(681)
2012	337	(3)	70	-	67	19.9%	404
2013	(337)	3	(180)	-	(177)	52.5%	(514)
2014	63	(1)	(323)	-	(324)	(514.3%)	(261)
2015	(411)	4	191	-	195	(47.4%)	(216)
2016	(6,577)	66	(587)	-	(521)	7.9%	(7,098)
2017	4,483	(224)	(67)	-	(291)	(6.5%)	4,192
2018	31,114	(1,649)	(1,943)	-	(3,592)	(11.5%)	27,522
2019	70,465	(2,819)	(135)	-	(2,954)	(4.2%)	67,511
2020	165,502	(8,275)	3,096	-	(5,179)	(3.1%)	160,323
2021	32,909	17,916	6,242	-	24,158	73.4%	57,067
<b>Grand Total</b>	<b>297,540</b>	<b>5,018</b>	<b>6,308</b>	<b>-</b>	<b>11,326</b>	<b>3.8%</b>	<b>308,866</b>