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May 22, 2015

Cheryl Blundon **Board Secretary** Board of Commissioners of Public Utilities 120 Torbay Road, P.O. Box 21040 St. John's, NL A1A 5B2

Dear Ms. Blundon:

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# Facility Association Rate Revision Application – Taxis and Limousines

On behalf of Facility Association, and as authorized by its Board of Directors, I am pleased to submit for approval a Facility Association rate revision application for Taxis and Limousines in the Province of Newfoundland and Labrador. This revision is proposed to become effective 100 days after approval for New Business and Renewals, rounded to the 1<sup>st</sup> of the following month or February 1, 2016, whichever is later.

This application proposes changes for all applicable coverages for Taxi, with an overall 74.1% increase proposed. Included are territorial base rate changes.

The Facility Association Board of Directors wishes to convey their continued belief that a cost of capital provision is appropriate and essential in Facility Association rates (and as is allowed in five of the six provinces Facility Association serves). Given the position of the Board of Commissioners of Public Utilities ("PUB") on the matter, however, we have developed the proposed rate changes without a cost of capital provision, and using a return on investment ("RoI") within the PUB's Benchmark range. The chart below includes the indications with and without a cost of capital provision, and at both the FA's RoI selection and using a 2.8% RoI assumption.

Taxi	Liab	AB	UA	All coverages
Indications 12% ROE; 0.41% RoI	+110.4%	+183.6%	+228.7%	+109.4%
Indications without CoC; 0.41% RoI	+87.6%	+152.9%	+193.2%	+86.7%
Indications without CoC; 2.8% RoI	+74.7%	+141.9%	+180.1%	+74.5%
Proposed % change	+74.7%	+141.9%	+180.1%	+74.1%
Proposed Avg \$ change	\$2,481	\$258	\$85	\$2,738

The difference between the indication without cost of capital and using a 2.8% RoI assumption and Facility Association's proposal is due to facilitating the change in the physical damage indications by adjusting the taxi multiplier and also by aligning the specified perils proposed change with the indicated change for comprehensive coverage

We are submitting this application because the proposed changes simply reflect the underlying reality of the excessive level of rate deficiency for this class of vehicles in the province and that loss experience continues to be poor in relation to rates charged. For example, for the 10 year period ending in 2013, the taxi claims frequency for at-fault losses was over five times as high as that of private passenger vehicles and nearly seven times as high as the claims frequency for commercial vehicles, whereas average earned premium for taxis was only three times higher than private passenger vehicles and less than three times higher than commercial. Even with the 50% rate increase effective August 1, 2013 and the recent 19.3% rate increase granted effective September 1, 2015, our projection of the indemnity loss ratio that will be generated for policies effective February 1, 2016 for a 12-month term is 161% (based on the most recent 5 years of experience), well above our 61% target.

We also note that the latest PUB Benchmark trends for industry commercial vehicles (as at June 30, 2014) seem to acknowledge the deteriorating loss cost environment in the province, as they are higher than previously selected for each of the mandatory coverages. In particular, the selected trend for bodily injury moved from being a negative to a positive trend, moving 2.5 points (whereas FA's selection has not changed). In addition, there was a significant movement in the PUB's accident benefits trend, increasing 8.0 points compared with a 1.7 point increase for FA. In both cases, these changes in the PUB selection substantially reduced the "gap" that existed between FA and PUB selected trends using industry data as at December 31, 2012 ("2012-H2") as opposed to as at June 30, 2014 ("2014-H1"). This narrowing was due to the PUB Benchmarks moving toward FA, as opposed to FA moving toward the PUB Benchmarks.

Coverage or	FA Selec	ted Loss Co	st Trend	NL PUB	NL PUB Selected Loss Cost			
Subcoverage		Rates			Trend Rates			
	2012-H2	2014-H1	pt chg	2012-H2	2014-H1	pt chg		
TPL BI	4.4%	4.4%	-	(1.5%)	1.0%	2.5%		
TPL PD	2.4%	3.3%	0.9%	-	1.0%	1.0%		
Accident Benefit	7.6%	9.3%	1.7%	1.0%	9.0%	8.0%		
Uninsured Automobile	7.6%	5.1%	(2.5%)	1.0%	9.0%	8.0%		
Collision	0.1%	2.4%	2.3%	-	(0.5%)	(0.5%)		
Comprehensive	5.1%	1.8%	(3.3%)	2.0%	0.5%	(1.5%)		
Specified Perils	5.1%	-	(5.1%)	2.0%	0.5%	(1.5%)		

Put in this context, it would seem clear that taxi rates, rather than being in any way "excessive", are clearly still deficient in comparison with rates for private passenger vehicles and commercial vehicles, even with the recent rate changes. We are not aware of any social policy rationale to support a view that taxis should get much preferred rates, particularly when they are the cause of a much higher frequency of at-fault claims.

This brings us to a discussion that was briefly brought up during the 2014 year, that being fiscal responsibility and incentives for changes in driving behaviours for owners and operators of taxis in the province. Specifically, keeping insurance rates artificially low reduces the fiscal responsibility of the taxi industry in relation to the accidents and the associated harm their accidents generate. What's more, this blunts any incentive for the taxi industry or individual taxi owners to change their own or their drivers' behaviours, which might actually either reduce the number of accidents they are causing, or reduce the severity of harm those accidents cause, or both. We firmly believe that having the taxi industry be fiscally responsible for the societal costs of their driving is the only way to provide incentive for change.

Keeping insurance rates artificially low also results in a direct subsidy to the taxi industry. In particular, since the results of Facility Association are shared by jurisdiction and line of business, any shortfall in Newfoundland & Labrador taxi rates must be made up by all insurers providing non-private passenger automobile insurance in the province. Over the 10 accident year period 2004-2013 inclusive, we **estimate the 10-year subsidy to have been \$26.1 million**<sup>1</sup>, or \$2.6 million per year (compared with average annual earned premium of \$1.5 million), or **approximately \$3,544 per taxi (compared with per taxi average earned premium of \$2,021** over that 10-year period). While we can understand why any industry would want its input costs subsidized, we would hope that most would understand that our industry has no appetite to provide that subsidy.

<sup>&</sup>lt;sup>1</sup> Based \$26.6 million in ultimate indemnity losses over the 10-year period, the associated earned premium would have needed to be \$40.9 million to generate a "target" indemnity loss ratio of 65% (our current target ratio is 60.8% - we are using a higher ratio here to recognize that risk-free interest rates were higher over the 10-year period than they are right now). The subsidy of \$26.1 million is the difference between the \$40.9 million target premium level and the actual earned premium of \$14.8 million over the 10-year period.

In 2013, Facility Association adopted the following mission statement:

"Facility Association's mission is to administer automobile insurance residual market mechanisms, enhance market stability, and guarantee the availability of automobile insurance to those eligible to obtain it. We strive to keep the market share of the residual markets as small as possible, so consumers may benefit from the competitive marketplace to the greatest extent possible."

Currently, almost all of the taxis in Newfoundland & Labrador are insured through Facility Association, contrary to our mission. However, this is not surprising given that taxis are receiving the coverage at premiums that do not cover costs. If we can get our pricing to an adequate level, it could help to create "room" in the market for more companies to enter, thereby creating more choice for taxi owners.

If anything further is required with respect to this application, please contact me at (416) 644-4912 or email <u>jhepburn@faciltyassociation.com</u>.

Yours truly,

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Jill Hepburn, FCIP, CRM Vice President, Underwriting and Claims

cc. David J. Simpson, President & CEO, Facility Association

### **General Updated Indication Discussion**

While Facility Association (FA) recently received approval for a 19.3% increase from the NL Board of Commissioners of Public Utilities ("PUB") arising out of our 2014 rate filing, we are submitting a new application immediately for the following reasons:

- where our rates have not kept up with experience, our preference is to file for rate changes at least annually until the rates are back in line with the experience
  - FA filed a rate submission in January of 2013, receiving approval to increase rates effective August 1, 2013
  - o our March 2014 rate filing anticipated a decision quickly enough that the associated rates would be in effect for August 1, 2014 AND that we would be filing again in March 2015
  - because of the length of time to final decision (May 2015), the effective date of the rates we submitted is a full year behind our original filing as submitted
- our updated indication takes advantage of updated data and information, including:
  - o 2013 AIX FA Residual Market ("FARM") taxi data
  - 2014 Q3 FARM Newfoundland & Labrador ("NL") non-private passenger vehicle valuation;
  - 2014-H1 (i.e. June 30) Industry NL commercial vehicle ("CV") trends as selected by FA
  - 2015 March Government of Canada bond yields (generating the 0.41% net return on investment ("RoI"), although the final proposal by FA uses a 2.8% RoI assumption)
- the experience continues to be poor:
  - the latest 10 accident years having generated an indemnity loss ratio (ultimate) of 179%
  - the March 2014 rate filing was based on the experience of accident years 2008 to 2012 inclusive, which at the time had an estimated ultimate indemnity level of \$14.3 million with more up-to-date data and information, this total ultimate level has deteriorated by \$1.8 million (12.8%), with this deterioration being equivalent to 24% of the premium earned over that five-year period
    - of this \$1.8 million deterioration, \$1.7 million is related to accident years 2009-2012 inclusive this translates into a 14.0% deterioration in the associated average loss costs for those accident years
  - the current filing uses the most recent 5 accident years this means that accident year 2008 is being replaced with accident year 2013 or a 19.2% increase (based on comparing the updated projected on-level loss costs)

- equally weighted, 80% of the former experience period loss costs deteriorated by 14.0% and 20% of the former experience period has been replaced by a 19.2% higher loss cost, suggesting an overall deterioration of approximately 15% for the "experience period" loss costs used in the indication between filings
- however, this deterioration is "credibility-weighted" by approximately 42%, suggesting the final impact of the experience period deterioration is approximately 6.3 points of indication in the current filing
- we believe it was made clear during the hearing process on November 6, 2014 in Mr. Doherty's testimony that it should be expected that continued rate increases beyond what was asked for were likely to emerge:

"I don't want to shock people, but if the experience is really reflective of the underlying costs and it continues at that level, and we will eventually get there if it continues like that, the actual indication would be about 126 percent increase."

It was confirmed that the 126% rate increase based strictly on the 10 years of experience (i.e. giving full weight to the FA taxi experience) should be compared with the 50% increase that was sought by FA and can be compared with the 19.3% increase eventually granted. Mr. Doherty went on to explain:

"... but if the experience continues along that path we've seen for the last ten years, eventually that credibility weighting process is going to lead you to the experience, and you're going eventually to get to rates that are commensurate with this. So does it happen next year, the year after, the year after, but some time in the next period you're going to get there unless something dramatically changes in the underlying trends that we're seeing in the taxi loss cost piece."

We refer to this as the "credibility LR to experience LR gap" and this can be measured, for indication purposes, as the ratio of the experience LR to the credibility LR less unity. For the March 2014 filing, this gap was 152.5% / 116.8% -1 or 30.6%. That is, an additional 30.6% of indicated rate increase is needed to close the gap between the experience (projected) loss ratio and the final credibility weighted loss ratio. This can be viewed as a "forward-looking" measure of rate change the experience period is indicating, but is not reflected in the current rate indication due to the credibilityweighting process. If the experience continues on the same path, this "gap" indication will show up in the next indication, "credibility-weighted". That is, if the experience updated the following year is consistent with previous years, then even if there is no trend whatsoever and no other changes to assumptions are made, the following year's indication will be an increase of 30.6% times the assigned experience credibility. This is because the following year's "credibility-weighted LR" is the previous year's credibilityweighted LR, credibility-weighted with the updated experience period LR. In the case where "nothing is changing", we would be at a credibility-weighted LR of 152.5% x credibility + 116.8% x (1-credibility). In our case, where the overall credibility is approximately 42%, we would be at 152.5% x 42% + 116.8% x (1-42%) = 131.8%.

This process is repeated each year, such that, over time, the credibility-weighted LR moves to the experience period LR. This is what Mr. Doherty was referring to in his statement during the hearing. As per above, the March 2014 result suggested a 30.6% "gap", which would be effectively credibility-weighted into our updated indication. Again, with overall credibility at approximately 42%, the "gap" indication impact is approximately 12.8 points.

The chart summarizes the movement in the indication from our previous filing to the current, taking into account subsequent rate changes and the issues discussed above (this is a rough segmentation for illustrative purposes only):

		0% CoC	
		Basis	
2013 Q4	indication	71.9%	final FA indication
subseque	ent rate changes		
	PPV RG	(0.4%)	
	latest taxi	19.3%	
		18.8%	
estimate	d residual indication	60.5%	
Adjust fo	r:		
cle	osing prior credibility LR to experience LR gap	12.8%	= (152.5% / 116.8%-1) x 42% credibility
	1.5 yrs of claim/prem trend	5.9%	3.9% "net" annual trend (all coverages, 2012 FA selected)
	experience period deterioration	6.3%	=15% x 42% credibility
	all other	1.2%	residual impact due to all other changes
2015 QI	indication	86.7%	

# **General Experience Discussion**

As previous discussed, the NL taxi experience continues to be poor, with the latest 10 accident years having generated an indemnity loss ratio (ultimate) of 179% (the associated ratio for the most recent 5 accident years is 218%). Even with the 50% rate increase effective August 1, 2013 and the recent 19.3% rate increase granted effective September 1, 2015, our projection of the loss ratio that will be generated for policies effective February 1, 2016 for a 12-month term would generate an indemnity loss ratio of 163% if we use the most recent 5 years of experience only (see below):

as at	31-Dec-2013	I	FA Experience			
Coverage	AY	Earned Taxi Count	Earned Premium	Ultimate Loss Ratio	Trended Ultimate Loss Ratio	Accident Year Weight
		(1s)	(\$1s)			
		[1]	[2]	[7]	[17]	[18]
TOTAL						
	2004	749	1,342,717	105.5%	91.4%	
	2005	628	1,316,494	89.6%	94.4%	
	2006	573	1,272,025	120.3%	112.2%	
	2007	663	1,290,663	162.7%	142.0%	
	2008	725	1,412,456	171.2%	145.0%	
	2009	764	1,516,679	181.0%	146.9%	20.0%
	2010	780	1,565,401	209.6%	163.1%	20.0%
	2011	793	1,587,985	215.0%	160.9%	20.0%
	2012	816	1,676,159	253.9%	181.3%	20.0%
	2013	851	1,855,847	227.0%	162.4%	20.0%
	Total/Wtd Avg.	7,342	14,836,426	179.0%	162.9%	100.0%

The experience has been updated from the experience as provided in the March 2014 filing:

				Indemnity @ Dec 2013								
All Coverages Basis	Earned Exposure (excl trailers)	Earned Premium	Avg Earned Premium		Paid	Case	Recorded	Ultimate	IBNR			
	(1s)	(\$1s)	(\$1s)		(1s)	(\$1s)	(\$1s)	(\$1s)				
AY	[1]	[2]	[3]		[4]	[5]	[6]	[7]	[8]			
	2013 FA AIX	2013 FA AIX	=[2]/[1]		2013 FA AIX	2013 FA AIX	=[5]+[4]	=[6]+[5]	=[7]-[6]			
2004	749	1,342,717	1,793		1,417,194		1,417,194	1,417,194	-			
2005	628	1,316,494	2,096		1,097,217	82,045	1,179,262	1,179,262	-			
2006	573	1,272,025	2,220		1,529,738		1,529,738	1,529,738	-			
2007	663	1,290,663	1,947		1,850,761	215,228	2,065,989	2,099,934	33,945			
2008	725	1,412,456	1,948		1,888,313	500,000	2,388,313	2,418,512	30,199			
2009	764	1,516,679	1,985		2,158,524	531,773	2,690,297	2,744,519	54,222			
2010	780	1,565,401	2,007		1,881,662	1,296,395	3,178,057	3,281,671	103,614			
2011	793	1,587,985	2,003		2,045,570	1,217,689	3,263,259	3,414,465	151,206			
2012	816	1,676,159	2,054		936,137	3,116,554	4,052,691	4,256,375	203,684			
2013	851	1,855,847	2,181		315,181	2,173,583	2,488,764	4,213,185	1,724,421			
Total	7,342	14,836,426	2,021		15,120,297	9,133,267	24,253,564	26,554,855	2,301,291			
2008 to 2012	3,878	7,758,680	2,001		8,910,206	6,662,411	15,572,617	16,115,542	542,925			

As per above, over the 10 accident years shown, FA has already paid out \$15.1 million in indemnity payments, while having earned only \$14.8 million in premium. In addition, there is an estimated \$11.4 million that will be paid out in the future on those same accident years.

The change in the results of the above accident years from the results as at December 31, 2012 are shown below:

	C	hange in Recor	ded Indemnity	/	Chang					
All Coverages Basis	as at Dec 2012	as at Dec 2013	Change	% Change	as at Dec 2012	as at Dec 2013	Change	% Change	2012 IE	3NR
	(1s)	(\$1s)	(\$1s)		(1s)	(\$1s)	(\$1s)			
AY	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	]
	2012 FA AIX	=[6]	=[10]-[9]	=[11]/[9]	2012 FA AIX	=[7]	=[14]-[13]	=[15]/[13]	=[13]-	[9]
2004	1,417,194	1,417,194	-	-	1,417,194	1,417,194	-	-		-
2005	1,179,262	1,179,262	-	-	1,197,092	1,179,262	(17,830)	(1.5%)	17	',830
2006	1,529,738	1,529,738	-	-	1,523,590	1,529,738	6,148	0.4%	(6	5,148)
2007	2,065,989	2,065,989	-	-	2,012,433	2,099,934	87,501	4.3%	(53	3,556)
2008	2,255,974	2,388,313	132,339	5.9%	2,262,513	2,418,512	155,999	6.9%	6	5,539
2009	2,807,886	2,690,297	(117,589)	(4.2%)	2,606,682	2,744,519	137,837	5.3%	(201	,204)
2010	3,290,212	3,178,057	(112,155)	(3.4%)	2,959,499	3,281,671	322,172	10.9%	(330	),713)
2011	3,038,378	3,263,259	224,881	7.4%	3,104,890	3,414,465	309,575	10.0%	66	5,512
2012	2,847,576	4,052,691	1,205,115	42.3%	3,347,643	4,256,375	908,732	27.1%	500	),067
2013										
Total	20,432,209	21,764,800	1,332,591	6.5%	20,431,536	22,341,670	1,910,134	9.3%		(673)
2008 to 2012	14,240,026	15,572,617	1,332,591	9.4%	14,281,227	16,115,542	1,834,315	12.8%	41	,201

In total, recorded activity on the 2008 to 2012 accident years (these being years given weight in the March 2014 filing) increased by \$1.3 million, against 2012 IBNR of \$41 thousand for those accident years. Our updated estimates of ultimate (up by \$1.8 million or roughly 24% of the earned premium for the 2008-2012 period) reflects this updated and unanticipated activity.

It may be helpful to consider this poor experience in relation to other automobile insurance experience in the province, to put these results into context. Below, we focus on third party liability (TPL) only, as this reflects the experience resulting from damages arising where the driver is at fault.

The table below is the FA NL Taxi TPL experience over the latest 10 accident years, as at December 31, 2013, indemnity only, and "unfactored" (i.e. as recorded only – NOT at ultimate, and NO trends applied).

ce ID	FA AIX	🖵 11 (10yr)	
1arket	FA		
urisdiction (short fo	NL NL		
Aajor Coverage Typ	TPL		Source db: <u>01a FARM AIX 10yr (2013 12 3</u>
Minor Coverage Typ	(All)	<b>•</b>	Source Table: TempTable01
winor coverage ryp	/ ( <i>A</i> II)		Source Table. Temptableor

Sum of Amoun	-								
FA Minor Rati Class Code	ng Accident Year	Earned Exposure (excl trailers) - policy	Earned Premium	Closed Claim Count	Open Claim Count	Recorded Claim Count	Paid Indemnity	Case Indemnity	Recorded Indemnity
⊟TX	2004	749	1,227,337	99		99	1,205,907		1,205,907
	2005	628	1,213,721	84		84	837,107		837,107
	2006	573	1,172,997	103		103	1,280,890		1,280,890
	2007	663	1,188,137	131		131	1,747,875	210,228	1,958,103
	2008	725	1,301,390	118		118	1,730,303	500,000	2,230,303
	2009	764	1,391,046	133		133	1,937,717	459,898	2,397,615
	2010	780	1,430,390	128		128	1,723,160	1,289,966	3,013,126
	2011	793	1,462,352	156	9	165	1,698,633	1,157,291	2,855,924
	2012	816	1,532,990	121	35	156	707,660	2,991,682	3,699,342
	2013	851	1,685,817	56	70	126	195,712	1,964,439	2,160,151
TX Total		7,343	13,606,178	1,129	114	1,243	13,064,964	8,573,504	21,638,468

The experience of Industry NL private passenger vehicle (PPV) and commercial vehicle (CV) is shown in the next table, on the same and comparable basis to the above.

INDUSTRY	TPL ONLY	Y Source: Industry AIX LDF Triangle Data, 2013-H2							
FA Minor Rating Class Code	Accident Year	Earned Exposure (excl trailers) - policy	Earned Premium	Closed Claim Count	Open Claim Count	Recorded Claim Count	Paid Indemnity	Case Indemnity	Recorded Indemnity
PPVxFrmr	2004	226,984	151,650,648	7,137	6	7,143	66,996,943	4,589,900	71,586,843
	2005	229,582	142,801,412	7,218	10	7,228	75,088,157	3,317,753	78,405,910
	2006	240,239	136,965,342	7,409	18	7,427	70,703,641	5,177,177	75,880,818
	2007	245,397	142,347,373	7,613	22	7,635	79,440,863	9,346,048	88,786,911
	2008	257,393	150,731,662	7,402	76	7,478	75,561,879	12,560,701	88,122,580
	2009	270,066	165,268,162	8,334	78	8,412	74,720,626	20,289,609	95,010,235
	2010	280,470	176,257,235	8,658	195	8,853	73,822,927	39,432,183	113,255,110
	2011	288,950	183,242,147	9,220	337	9,557	63,092,227	51,250,354	114,342,581
	2012	298,398	187,778,832	8,895	724	9,619	43,999,999	71,291,906	115,291,905
	2013	307,552	194,186,205	6,502	3,173	9,675	20,909,357	82,466,792	103,376,149
PPVxFrmr Total		2,645,029	1,631,229,019	78,388	4,639	83,027	644,336,619	299,722,423	944,059,042
CV	2004	19,193	15,543,847	460	-	460	6,150,742	448,695	6,599,437
	2005	19,642	16,080,745	480	-	480	5,421,230	431,656	5,852,886
	2006	19,919	15,741,907	496	4	500	5,553,711	667,828	6,221,539
	2007	20,286	15,582,087	528	6	534	6,444,215	1,618,950	8,063,165
	2008	20,043	15,004,780	471	7	478	5,797,360	1,821,471	7,618,831
	2009	20,794	15,692,660	502	6	508	6,058,740	938,007	6,996,747
	2010	21,702	16,818,686	496	8	504	5,667,896	1,798,997	7,466,893
	2011	22,862	17,766,047	569	34	603	4,422,920	4,952,076	9,374,996
	2012	24,261	18,258,752	519	51	570	3,008,788	4,363,855	7,372,643
	2013	26,090	18,639,533	417	219	636	1,918,250	5,904,620	7,822,870
CV Total		214,793	165,129,044	4,938	335	5,273	50,443,852	<b>22,946,155</b>	73,390,007

The table on the next page presents comparative statistics related to the above. This statistics table shows that over the ten year period, the FA taxi TPL recorded indemnity loss ratio was 159%, compared with 58% for Industry PPV and 44% for Industry CV. Again, these ratios are not ultimate ratios, but rather recorded indemnity only. However, they are directly comparable assuming that relative growth in earned exposures has been consistent among them, and trends and reporting patterns are largely the same.

Sum of Amount		FA	TPL		Source:	FA AIX AU11 (1	Oyr)	
FA Minor Rating Class Code	Accident Year	recorded LR	claim count per 1,000 earned exposures	paid & closed indemnity severity	case & open indemnity severity	recorded indemnity severity	recorded indemnity loss cost	average earned premium
⊟TX	2004	98.3%	132.2	12,181	-	12,181	1,610.45	1,639.07
	2005	69.0%	133.7	9,966	-	9,966	1,332.50	1,932.00
	2006	109.2%	179.7	12,436	-	12,436	2,234.92	2,046.67
	2007	164.8%	197.6	13,343	210,228	14,947	2,952.89	1,791.75
	2008	171.4%	162.7	14,664	500,000	18,901	3,075.54	1,794.59
	2009	172.4%	174.0	14,569	459,898	18,027	3,137.00	1,820.02
	2010	210.7%	164.1	13,462	1,289,966	23,540	3,862.05	1,833.39
	2011	195.3%	208.0	10,889	128,588	17,309	3,600.97	1,843.85
	2012	241.3%	191.2	5,848	85,477	23,714	4,534.38	1,879.03
	2013	128.1%	148.0	3,495	28,063	17,144	2,536.95	1,979.87
TX Total		159.0%	169.3	11,572	75,206	17,408	2,946.68	1,852.86

INDUSTRY	TPL ONLY	INDUSTRY	TPL ONLY	Source: Industry AIX LDF Triangle Data, 2013-H2							
FA Minor Rating Class Code	Accident Year	recorded LR	claim count per 1,000 earned exposures	paid & closed indemnity severity	case & open indemnity severity	recorded indemnity severity	recorded indemnity loss cost	average earned premium			
PPVxFrmr	2004	47.2%	31.5	9,387	764,983	10,022	315.38	668.11			
	2005	54.9%	31.5	10,403	331,775	10,848	341.52	622.01			
	2006	55.4%	30.9	9,543	287,621	10,217	315.86	570.12			
	2007	62.4%	31.1	10,435	424,820	11,629	361.81	580.07			
	2008	58.5%	29.1	10,208	165,272	11,784	342.37	585.61			
	2009	57.5%	31.1	8,966	260,123	11,295	351.80	611.95			
	2010	64.3%	31.6	8,527	202,216	12,793	403.81	628.44			
	2011	62.4%	33.1	6,843	152,078	11,964	395.72	634.17			
	2012	61.4%	32.2	4,947	98,469	11,986	386.37	629.29			
	2013	53.2%	31.5	3,216	25,990	10,685	336.13	631.39			
PPVxFrmr Total		57.9%	31.4	8,220	64,609	11,371	356.92	616.71			
cv	2004	42.5%	24.0	13,371	-	14,347	343.84	809.86			
	2005	36.4%	24.4	11,294	-	12,194	297.98	818.69			
	2006	39.5%	25.1	11,197	166,957	12,443	312.34	790.28			
	2007	51.7%	26.3	12,205	269,825	15,100	397.47	768.12			
	2008	50.8%	23.8	12,309	260,210	15,939	380.13	748.63			
	2009	44.6%	24.4	12,069	156,335	13,773	336.48	754.68			
	2010	44.4%	23.2	11,427	224,875	14,815	344.06	774.98			
	2011	52.8%	26.4	7,773	145,649	15,547	410.08	777.11			
	2012	40.4%	23.5	5,797	85,566	12,934	303.88	752.58			
	2013	42.0%	24.4	4,600	26,962	12,300	299.84	714.43			
CV Total		44.4%	24.5	10,215	68,496	13,918	341.68	768.78			

Based on these loss ratios, taxi TPL rates would have had to be 175% higher to have generated the same loss ratio as seen for PPV, and 261% higher to generate the same loss ratio as seen for commercial. Clearly, a 50% increase effective August 2013 and an additional 19% increase effective September 2015 combined (approximately 79%) would not generate a 175% increase nor a 261% increase.

Claims frequency in the statistics table measures the number of claims per 1,000 vehicles exposed over a 12-month period. Again, this is TPL, so this represents the frequency of claims where the driver was at fault. The TPL frequency for taxi over the 10 year period is shown at

 $169^2$  per thousand, compared with 31 for PPV and 25 for CV. This indicates that taxi drivers generate 5<sup>1</sup>/<sub>2</sub> times as many TPL claims as PPV, and 6<sup>3</sup>/<sub>4</sub> times as many claims as CV. This is shown in the charts below, along with the ratio of taxi average earned premium to PPV (left chart) and CV (right chart).



In addition to having a higher level of TPL claims frequency, the TPL claims severity (i.e. the average size of the claim, once a claim occurs) is also higher for taxi than PPV or CV over the period shown.

As a result of the higher TPL frequency and severity of claims, the combination of these two (being loss cost), is 8<sup>1</sup>/<sub>4</sub> times as large for taxi than PPV, and 8<sup>1</sup>/<sub>2</sub> times as large for CV. And yet, as shown in the table, the average taxi premium over this period was only 3 times that of PPV and 2<sup>1</sup>/<sub>2</sub> times that of CV. This, of course, is captured in the loss ratio gap that we started the discussion with. Furthermore, it is not one or two individual "bad" years that are causing these differences. The "best" loss cost year for taxi (2005) was 4<sup>1</sup>/<sub>4</sub> times worse than the best PPV year (2004) and 4<sup>1</sup>/<sub>2</sub> times worse than the best CV year (but the "bad year" gaps are very large). This is shown in the charts below, where we focus on loss cost (as opposed to frequency as per the charts above).



 $<sup>^{2}</sup>$  Note: this is a claim count frequency measure, not an accident count measure. A single accident may cause several individual claims within TPL, as there are 2 sub-coverages included (bodily injury and property damage) and there may be more than one claimant per accident.

### **Trend Rate Discussion**

The published PUB Benchmark trend rates differ considerably from FA's, mainly due to differences in the trend analysis processes. These differences were discussed at length during the 2014 rate hearing. The March 2014 rate filing was based on trends selected using 2012-H2 (i.e. December 31, 2012) industry commercial AIX data as published by GISA.

With the release of the draft 2014-H1 (i.e. June 30, 2014) PUB's benchmark trends, FA provided commentary on our review of PUB Selected Loss Cost trends, with a comparison to FA Selected Loss Cost trends at 2014-H1 (used in the current rate filing), and our view of the shortcomings of the PUB's consulting actuary's approach. We have attached this commentary to this filing, rather than reproduce our commentary here. However, we have provided further discussion on selected trend rates between the prior filing (2012-H2) and the current filing (2014-H1) in the following discussion.

The table below compares the selected trend rates as related to the March 2014 filing and the current proposal:

Coverage or Subcoverage	FA Selected Loss Cost Trend Rates			NL PUB	Selected Lo	ss Cost	NL PU	NL PUB Selected less FA Selected		
euneoverage	2012-H2	2014-H1	pt chg	2012-H2	2014-H1	pt chg	2012-H2	2014-H1	pt chg	
TPL BI	4.4%	4.4%	-	(1.5%)	1.0%	2.5%	(5.9%)	(3.4%)	2.5%	
TPL PD	2.4%	3.3%	0.9%	-	1.0%	1.0%	(2.4%)	(2.3%)	0.1%	
Accident Benefit	7.6%	9.3%	1.7%	1.0%	9.0%	8.0%	(6.6%)	(0.3%)	6.3%	
Uninsured Automobile	7.6%	5.1%	(2.5%)	1.0%	9.0%	8.0%	(6.6%)	3.9%	10.5%	
Collision	0.1%	2.4%	2.3%	-	(0.5%)	(0.5%)	(0.1%)	(2.9%)	(2.8%)	
Comprehensive	5.1%	1.8%	(3.3%)	2.0%	0.5%	(1.5%)	(3.1%)	(1.3%)	1.8%	
Specified Perils	5.1%	-	(5.1%)	2.0%	0.5%	(1.5%)	(3.1%)	0.5%	3.6%	

We consider three things as being clear when we consider the preceding table:

- i. FA's selected trend rates have not changed significantly for the mandatory coverages;
- ii. the PUB's selected trend rates have changed significantly for the mandatory coverages; and
- iii. the PUB's selected trend rates for mandatory coverages have moved toward FA's selections (in particular, the gaps between the two have been narrowed).

We were not surprised by this, given the PUB's consulting actuary's approach compared to our own. In FA's final argument in relation to the 2014 taxi hearing, FA suggested that, while the PUB's trend approach was purported to promote stability (i.e. trend rates that do not change significantly from one analysis to the next) as well as being responsive, the approach was in fact not producing stable selections. This view continues to be borne out by the results. The least squares approach via linear regression is shown to produce unbiased parameter estimates – we are not able to determine if the approach taken by PUB's consulting actuary similarly produces unbiased parameter estimates. However, given the assumptions supporting use of linear regression, the Gauss-Markov Theorem states that the least squares estimator is the <u>most precise</u> estimator possible in that it has the smallest variance. As the PUB's consulting actuary does not use the least squares estimates as their final selection, their selections are, by virtue of the Gauss-

Markov Theorem, less precise (i.e. will have a larger standard error) than FA's estimates (as we do use the least squares estimates generally).

Further to this, FA's trends have not changed in a "statistically significant" way. That is, the loss cost trend rates fitted and selected by FA through our process are within one standard error of our trend rate selections based on the 2012-H2 experience (as used in our last rate filing and discussed at length at the hearing). Our selected "trend periods" within the experience period have not changed, as our analysis has concluded that our selected "trend periods" remain appropriate. Given this, the "new" data points simply provide "more" data associated with the most recent "trend periods", and, as we would generally expect, this has resulted in a reduction in the standard errors of our rate trend estimates. For example, at 2012-H2, our bodily injury loss cost trend rates selection was 4.4% with a standard error of  $\pm/-3.2\%^3$ , whereas our update at 2014-H1 has this as  $4.4\% \pm/-2.1\%$ . This standard error reduction from 3.2% to 2.1% reflects a reduction in uncertainty that comes from having more data in the "trend period" from which the trend rate parameter is estimated.

It is important to note that the PUB Benchmark selected trend rate for bodily injury, at 1.0%, is not within a standard error of our selected rate, and hence we view it as differing from ours in a statistically significant way.

Another coverage where we are seeing a significant reduction in the standard error of our trend rate estimates is for accident benefits, where we moved from 7.6% +/-6.2% to 9.3% +/-4.7%. Here, the PUB Benchmark at 9.0% is not different from our selection in a statistically significant way, based on our estimates and modeling. However, the PUB rate has moved significantly from the 2012-H2 position of 1.0%. Further, we would point out that it is almost ironic that where the testimony of the PUB's consulting actuary (Ms. Elliot) last fall indicated that she was quite adamant that there was "no change" around accident periods 2004-H1 / 2004-H2, the experience periods underlying her selections now only reflect experience at 2004-H2 and beyond (as does our selection for the most recent period).

It was argued by Ms. Elliot during the hearing last fall that the trend analysis approach taken by Oliver Wyman as the PUB's consulting actuary supports a "stability" goal "*We think that by excluding high and low points, it's helping to give a more stable measurement of the trend rate.*" We argued in our response to the Consumer Advocate's argument that if this was the aim, the results do not show that the objective is being met. The changes in selections with the 2014-H1 results further support our position, particularly in light of FA's changes in trend rates where FA has excluded few data points in any of its selected models<sup>4</sup>.

<sup>&</sup>lt;sup>3</sup> As we do not model loss costs directly, the regression process does not estimate a trend rate and an associated standard error for that rate estimate. However, we are able to estimate the standard error for the loss cost estimate through a standard "Monte Carlo" simulation process using the trend rate estimates and associated standard errors from our selected frequency and severity trend models.

<sup>&</sup>lt;sup>4</sup> In general, we only excluded data points where their value was "0", where inclusion would have prevented fitting of an exponential curve. The only situation where this was not the case was for bodily injury severity, but only in the period prior to 2004-H2 (and hence, having no impact on the current indications).

### **Full Credibility Standard Discussion**

Another major difference with respect to the March 2014 filing is related to a change FA implemented with respect to the claim count necessary to assume the FA's experience is "fully credible". FA implemented changes to the "full credibility" standard counts across all jurisdictions in 2013 to make all consistent (basically differentiating between "long tailed" and "short tailed" coverages). The impact of the change gives more weight to FA experience, all else being equal. This change was based on actuarial judgement, with the explicit goal of giving more weight to the FA's experience (whether good or bad). The PUB's filing guidelines state that when such a change is implemented, it is to be discussed and supported. While the rationale for the change was discussed during the hearing, the NL PUB rejected the change.

We have filed 25 rate changes requiring actuarial support for various rating classes and jurisdictions since the change was implemented, and there have been no issues related to this change in other jurisdictions<sup>5</sup>, other than a recent taxi filing in Nova Scotia where we presented sufficient evidence to the staff to support the position that this change was not "biased" to generate higher rate indications (and were subsequently accepted by the associated Board). The support entailed summarizing the impact of the change in relation to bodily injury indications for the 166 rate level indications completed by FA during the 2014 rating cycle. As per the table below, 25% of the rate indications. We showed that the results specific to Nova Scotia were similarly distributed.

*Estimated Impact of reducing the full credibility claim count for BI, in relation to the 2014 rating cycle indications – all jurisdictions* 

summary of impacts:	zero	41	24.7%
	lower ind	92	55.4%
	higher ind	33	19.9%
tota	l # of reviews:	166	

The table below provides the same information, but related only to the rate indications performed for NL. Here, because the experience has been generally worse than what would be expected if rates were adequate, the change did result in a higher percentage (39%) resulting in a higher indication than was the case across all jurisdictions in total. However, 39% is still well below

<sup>&</sup>lt;sup>5</sup> Based on the 2013 and 2014 rate review cycles, FA submitted 20 rate filings requiring full actuarial support in 6 of the 9 jurisdictions we operate in, which have been decided upon by the applicable regulatory body (8 in Ontario, 4 in Alberta, 2 in Newfoundland and Labrador, 1 in New Brunswick, 4 in Nova Scotia, and 1 in Prince Edward Island). The change in full credibility levels has been accepted in all of these submissions, bar the two submissions in Newfoundland.

In addition to the above, FA currently has 5 submitted rate filings requiring full actuarial support still in process (i.e. submitted, but a decision has not yet been rendered: 1 in Alberta, 2 in New Brunswick, and 2 in Prince Edward Island). The issue of the credibility level has not come up as an issue thus far in any of these submissions.

50% and clearly shows that the overall change was not biased to be "unfavourable" in relation to rate increases to consumers.

*Estimated Impact of reducing the full credibility claim count for BI, in relation to the 2014 rating cycle indications – Newfoundland & Labrador* 

summary of impacts:	zero	4	22.2%
	lower ind	7	38.9%
	higher ind	7	38.9%
total #	of reviews:	18	

Further to this, the actuarial section of the filing presents additional detail on the full credibility standard impact, showing better "fit" in the relationship between a measure of loss cost volatility (being the ratio of standard deviation to average loss costs over accident years) and assigned credibility. Finally, this section highlights that the pre-2013 rate review cycle full credibility standard of 5 times 1,082 for third party liability was made up of a standard of 2 times 1,082 for bodily injury and 3 times 1,082 for property damage, which, in our actuary's view, is somewhat counterintuitive (one would expect short-tailed property damage experience to have less volatility with the same level of claim activity compared with a long-tailed bodily injury cover).

We believe that the facts above (that other jurisdictions have accepted the change, that the change is not biased, and that the change provides a better "fit" relationship between standard deviation / mean ratio and credibility) should be sufficient to satisfy the PUB's requirement with this filing.

# **Credibility Complement Discussion**

Yet another area of difference with respect to the March 2014 filing was with respect to the "starting" point assessment of the level of rate adequacy underlying the expiring rates. FA's position was that we did not get the rate level needed from our 2013 rate filing to achieve adequacy, so there was a rate deficiency "brought forward". The PUB's position was that their decision on the 2013 rate filing was based on their view that the rate increase granted did not leave any rate deficiency and therefore believed that the assumption should be that the expiring rates were adequate.

Our current filing again starts with the position that there is residual rate deficiency brought forward. We firmly believe this to be not only reasonable, but supported by the subsequent experience:

- our trend assumptions continue to hold up much better than the PUB's Benchmarks in particular, the PUB BI trends have moved significantly toward ours, and the Accident Benefits trend have moved not only past where our trends were last time, but to being not-statistically-different from where we are now;
- our "implied loss costs" based on the credibility-weighting continue to be more aligned with the actual experience as it unfolds

• our "credibility / experience LR" gap continues to be much smaller than the PUB level

Again, we emphasize that the experience will ultimately dictate the rates. Ignoring that our historical views have proven to be "closer to the experience" than the PUB's position only prolongs the process, perpetuating the insurance industry to taxi industry subsidy, and blunting incentives for the taxi industry to proactively reduce their claims frequency and/or severity.

## **Return on Investment Discussion**

Management has based its proposal on a 2.8% RoI which is within the published PUB Benchmark range. Nonetheless, we believe it is important to discuss why the current Benchmark range is not appropriate as currently published, as it does not reflect current risk-free yields.

We believe the proper approach to the RoI assumption setting in ratemaking is based on:

- that RoI should be forward-looking-i.e. reflect current yields versus historical returns;
- risk free rates

On this first issue, historical returns, however measured, are no guarantee of future returns. Further, historical returns are dependent upon how those returns are measured (i.e. both the "return" itself is subject to interpretation and accounting rules etc., and the "base" against which the return is measured is subject to accounting rules etc.) These "measure" differences do not change the economics of any cash flows of invested assets and it is the "economic reality" of the cash flows that is important in the context of the rate making process.

On the second issue, it is FA's view that any investment return in excess of a risk-free return generated on capital supporting the insurance operations should ipso facto be to the benefit of the capital provider and not to insurance policyholder. The capital provided is a buffer to ensure that policyholders are more likely to be provided the protection (i.e. paid indemnification for insured events) where it turns out that the premium collected (and the investment returns on the associated cash flows) are insufficient to meet the full cash flow requirements. We call this the "performance obligation guarantee".

The policyholder does not provide the capital, nor is the policyholder exposed to the downside risk of investment returns in securities other than risk-free. As such, it is FA's position that the policyholder should not benefit from returns on policy holder provided funds and/or capital in excess of risk-free. We display this in the diagram below:



risk investment return A is the additional 2% risk return on \$100 initial capital via over risk free (1%)

risk investment return B is the additional 2% risk return on \$22.22 "additional" capital via over risk free (1%)

\$22.22 "additional" capital set so that \$2 of additional risk return on \$100 initial capital generates a 9% return (9% being difference between target ROE of 12% and total investment return of 3% when risk return included)

In the diagram, capital is provided to underwriting to support issuance of policies, with the capital investment return provided to underwriting at the risk free rate (and it is assumed that policyholder provided funds will likewise be invested at risk-free returns). We have assumed a target ROE (where "equity" is synonymous with "capital" here) of 12%, and a risk free investment return of 1%. In order to get the 12% ROE, the total return on policyholder provided funds (from both underwriting and investment – represented as "return on premium" above) would need to be 11% of capital (for ease, we've also included the associated dollar amounts, assuming \$100 of capital required to support the underwriting operations).

As a separate function, "treasury" (or "investment")<sup>6</sup>, is responsible for actual investment activity on all invested funds and would be likewise charged with a target return of 12% ROE, where the "capital" is required to support any investment in other than "risk-free" securities.

Treasury could choose a higher level of return to target – for example, available policyholder provided funds and capital supporting the underwriting operation could be invested at  $3\%^7$  instead of 1%, but risking:

<sup>&</sup>lt;sup>6</sup> In the specific case of FA, "Underwriting" is at FA, while "treasury" or "investment" is at the member company level where the capital is actually maintained and invested.

- liquidity (i.e. having to liquidate investments at a loss to meet cash obligations)
- reinvestment (i.e. as securities mature and need to be reinvested, they are reinvested at lower yields)
- credit (i.e. security issuers default in whole or in part on coupons and/or principal when they come due)
- combinations of above and other market/credit risks.

Assuming policyholder funds are invested risk free<sup>8</sup>, but capital is invested in risk-assets that generate a 3% total return, the 3% return on the initial \$100 of capital would generate an additional \$2 of return over the \$1 return generated at risk free. Treasury would consider then the amount of "additional" capital that would be required to support this additional return. Assuming the additional capital would also be invested at 3%, then so long as the additional capital required is no more than  $\frac{52}{12\%} - \frac{3}{3\%}$  or  $\frac{522.22}{12\%}$ , it would make sense for treasury to make the investment (they would get \$2 of additional return on the initial \$100, plus 3% x \$22.22 or \$0.66 for a total return of \$2.66 on \$22.22 of capital, for a return of 12%).

On the other hand, if the capital required to support the capital invested at 3% is more than \$22.22, the company would be better off giving access to that \$22.22 of capital to underwriting to write more insurance (generating at 12% ROE).

Note that under this scenario, underwriting has no vested interest in the investment activities and whether or not investment risk activities are taken (so long as it is properly capitalized to reflect the inherent riskiness of the activity relative to the firms overall risk appetite, tolerance, and limits).

If, instead, the \$2 of additional risk-return on invested capital were to accrue to the benefit of the policyholder (in the form of lower premium), the diagram above would instead look like the one shown below:

<sup>&</sup>lt;sup>7</sup> For simplicity, we've used 3.0% instead of the 2.8% management used as being the low end of the NL PUB Benchmark range.

<sup>&</sup>lt;sup>8</sup> We make this assumption to simplify the discussion – otherwise, we have to introduce how much of the original return on premium is generated from underwriting profit and how much from investment income on policyholder funds, and for the latter, we need to make an assumption regarding the average duration of the policyholder funds. This is all doable, but risks losing the message in the detail.



Under this scenario, treasury is unable to capture the investment risk return on the initial capital of \$100 (while it is captured as part of underwriting's return, it is in fact given to the policyholder in the form of lower premium<sup>9</sup>). Note that here, the underwriters would have a vested interest in treasury's investment activity, as more "risky" activity will allow underwriting to reduce premium's charged – but all of the additional risk is borne by treasury (here, it would be underwriting putting pressure on treasury to increase yield that would potentially be problematic for an insurer – note that this is not an issue for FA as FA's mission is to be as small as possible).

Also note, importantly, that under this scenario, the company in total does not meet its 12% ROE target (it gets to 10%). Again, this is because part of its overall return was "given" to the policyholder.

Under this scenario (and assuming management can keep underwriting from pressuring treasury), the optimum strategy is NOT to invest the capital supporting underwriting at 3%, but instead give the additional \$22.22 of capital to underwriting to write more business at the 12% ROE, ensuring that the total \$122.22 would generate the target 12% ROE (again, this doesn't directly apply to FA as FA's mission is to be as small as possible).

Alternatively (and again, this wouldn't apply to FA), management could have treasury seek the additional "rent" from the policyholder as indicated below:

<sup>&</sup>lt;sup>9</sup> For ease of discussion, we ignore here that all else equal, offering lower premium to the policyholder for the same underwriting risk would require more capital to be provided to support underwriting. Capital to support underwriting is the amount required to guarantee performance of the insurance obligation to a set level of probability. In our initial case, the funding available to support the guarantee consisted of the initial \$100 of capital plus the \$12 expected return on that capital (i.e. \$112 in total). These funds would be associated with a specific probability of fulfilling the performance guarantee. If less premium is charged, the "return" will be less than \$12 so that the total funding available would be less than \$112. To maintain the performance guarantee probability, additional capital would be required to make up the funding shortfall to get it back to the \$112 target level.



The above is a simple "re-package" of the original scenario, although it is, in our view, more convoluted and makes it more difficult to see clearly "who owns what". In addition, this approach could not apply to FA, as treasury (i.e. members) would not be able to extract the "rent" from the FA policyholders.

Again, for FA's taxi indication, while the FA actuarial group selected a net return on investment / discount rate of 0.41% based on current risk free yields as discussed above, management has based the proposed rate change on an indication based on an assumption of a 2.8% return on investment, being the lowest level within the PUB published Benchmark range.