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December 10, 2018

NL Board of Commissioners of Public Utility  
120 Torbay Road  
P.O. Box 21040  
St. John's, NL  
A1A 5B2

Attention: Cheryl Blundon, Board Secretary

RE: FA NL **Category 2 Taxis, Jitneys & Liveries Rate Application – OW Taxi Supplemental Report** – Response to OW Supplemental Report dated November 29, 2018

Dear Ms. Blundon,

Facility Association (FA) received a copy of the November 29, 2018 Oliver Wyman Supplemental Report for the July 27, 2018 FA Category 2 Taxi Rate Application (the OW Supplemental Report) with a request to provide comments (if any) to the Board of Commissioners. We appreciate the opportunity to comments on the Supplemental Report prior to completion of your review.

We continue to believe that our proposed rate change of +10.2% overall is appropriate and warranted and we are available to discuss the rate application at any time. We also believe that a more appropriate comparison indication based on Scenario A alternative assumptions from the OW Report to be +5.9%, not +4.6%.

Best regards

Shawn Doherty, FCAS, FCIA  
SVP Actuarial & CFO

## **OW Supplemental Report Issues Discussion**

Facility Association (“FA”) submitted responses to the Oliver Wyman (“OW”) Report of Findings dated October 25, 2018 on November 21, 2018 (FA’s rebuttal responses) for Facility Association’s July 2018 Category 2 taxi rate application.

The OW Supplemental Report dated November 29, 2018 provided comments to FA’s rebuttal responses, and the two key issues the OW Supplemental Report commented on are listed below:

1. Overall Rate Level Impact of Alternative Assumptions
2. Estimate of the Ultimate Loss Amounts

Through this submission, we will address the issues.

### **OW Issue 1a Overall Rate Level Impact of Alternative Assumptions**

#### **FA Discussion of OW Issue 1**

OW Supplemental Report page 2 states:

*“The HST adjustment alternative assumption, in response to Question #4 dated August 24, 2018, FA provided the overall rate level based on the Oliver Wyman HST adjustment alternative at +9.5%, rather than the +10.2% rate indication calculated by FA using its HST adjustment, a difference of 0.7 percentage points. It is unclear to us why FA now presents a different HST adjustment alternative at 0.5 percentage points.”*

*“Similarly, for the servicing carrier adjustment to a level similar to that of New Brunswick, FA provided an overall rate level reduction of 4.6 percentage points in response to Question #2d dated September 7, 2018. It is unclear to us why FA now presents a different finding for the servicing carrier adjustment alternative at 4.2 percentage points.”*

OW Question #4 dated August 24, 2018 requested FA to provide an alternative indication based on the Board of Commissioners’ alternative HST adjustment factors with no other changes in the assumptions. The impact of the alternative HST adjustment alone is -0.7% as per our response to Question #4.

Similarly, OW Question #2d dated September 7, 2018 requested FA to provide an alternative indication based on an alternative expense provision assumption of \$481 (as opposed to the FA submission assumption of \$796) with no other changes in the assumptions, and FA estimated the impact of this alternative expense provision alone is -4.6% as per our response to Question #2d.

In FA’s rebuttal responses, FA provided alternative indications, adding adjusting for one additional alternative assumption at a time to illustrate the impact of each assumption change (that is, the “marginal” impact of each assumption change). Note that because of the nature of the estimates, order matters in terms of impact. That is, the marginal impact of alternative credibility complements may be different if it is the first alternative assumption change as opposed to the sixth change. This is summarized by “step” on the next page.

1. We estimated an alternative indication, based on **alternative credibility complements**, as **+5.2%** overall, a decrease of 5.0 points relative to the FA indication of +10.2%.
2. We estimated an alternative indication based, on **alternative credibility complements**, and **alternative loss trends**, as **+7.4%**, a decrease of 2.8 points relative to the FA indication of +10.2%, but an increase of 2.2 points relative to the alternative indication in step 1 above.
3. We estimated an alternative indication based on **alternative credibility complements**, **alternative loss trends**, and **alternative HST adjustment factors**, as **+6.9%**, a decrease of 3.3 points relative to the FA indication of +10.2%, and a decrease of 0.5 points relative to the alternative indication in step 2 above.
4. We estimated an alternative indication based on **alternative credibility complements**, **alternative loss trends**, **alternative HST adjustment factors**, and **alternative premium financing impact adjustments**, as **+5.9%**, a decrease of 4.3 points relative to the FA indication of +10.2%, and a decrease of 1.0 points relative to the alternative indication in step 3 above. This alternative assumption set is referred to as “**OW Scenario A**”.
5. We estimated an alternative based on **alternative credibility complements**, **alternative loss trends**, **alternative HST adjustment factors**, **alternative premium financing impact adjustments**, and **alternative ultimates for BI and AccBen**, as **+2.5%**, a decrease of 5.9 points relative to the FA indication of +10.2%, and a decrease of 3.4 points relative to the alternative indication in step 4 above. This alternative assumption set is referred to as “**OW Scenario B**”.
6. We estimated an alternative based on **alternative credibility complements**, **alternative loss trends**, **alternative HST adjustment factors**, **alternative premium financing impact adjustments**, **alternative ultimates for BI and AccBen**, and **alternative expense provisions**, as **-1.7%**, a decrease of 11.9 points relative to the FA indication of +10.2%, and a decrease of 4.2 points relative to the alternative indication in step 5 above. This alternative assumption set is referred to as “**OW Scenario C**”.

The differences in impact OW noted in the OW Supplemental Report are caused by two effects:

- the effect of the combination of the alternative assumptions, and
- change of the “Retroactive claims fee adjustment” as a result of assumption changes.

For example, the “Retroactive claims fee adjustment” for OW question 4 dated August 24, 2018 is 0.33% and 0.63% for OW question 2d dated September 7, 2018; but the “Retroactive claims fee adjustment” for the FA step 3 indication of +6.9% above is 0.32%, and the “Retroactive claims fee adjustment” for the FA step 6 indication of -1.7% above is 0.68%. The “iterative” nature of this adjustment reflects that the compensation for claims fees to Servicing Carriers is on a sliding scale basis, dependent on the ultimate indemnity loss ratio. The alternative assumptions put forth by OW impact either or both of the two components that generate the projected ultimate indemnity loss ratio at the associated estimated rate level.

We would like to point out the OW Scenario A indication of +4.6% noted in the OW Supplemental Report is not correct, based on a simple calculation starting with the FA proposed indication of +10.2%:

- -5.0% impact caused by alternative credibility complement (OW Report of Finding page 13), this will change the indication to +5.2% (10.2% - 5.0% = 5.2%);
- +2.3% impact caused by alternative loss trend rates (OW Report of Finding page 12), this will further change the indication to +7.5% (5.2% + 2.3% = 7.5%);
- -0.7% impact caused by alternative HST adjustment (OW Report of Finding page 7), this will further change the indication to +6.8% (7.5% - 0.7% = 6.8%);
- -1.1% impact caused by 0.75% finance fee revenue (OW Report of Finding page 12), this will further change the indication to +5.7% (6.8% - 1.1% = 5.7%);

Based on the above calculations, the OW Scenario A indication should have been +5.7%, not +4.6%; but based on FA indication model with a properly iterated “Retroactive claims fee adjustment”, the overall indication based on OW Scenario A alternative assumptions is +5.9%.

## OW Issue 2 *Estimate of the Ultimate Loss Amounts*

### FA Discussion of OW Issue 2

We’ve provided detail from the FARM non-PPV Newfoundland & Labrador December 31, 2017 valuation (basis used for this rate filing) comparing the FA selected valuation ultimate loss and OW proposed selection of ultimate loss by accident half-year (for the most recent 10 accident half-years) in the table below to assist with the discussion.

#### *FARM non-PPV Newfoundland & Labrador – Bodily Injury coverage (as at December 31, 2017)*

Accident Half-Year	Earned Premium ('000s)	Paid to Date ('000s)	Recorded to Date ('000s)	FA Selected Ultimate ('000s)	OW Proposed (BF Ultimate) ('000s)	FA Selected Loss Ratio	OW Proposed (BF Loss Ratio)
2013 / 1	2,097	1,216	1,216	1,215	1,214	58%	58%
2013 / 2	2,316	1,114	1,882	1,883	1,883	81%	81%
2014 / 1	2,336	931	1,253	1,241	1,232	53%	53%
2014 / 2	2,507	1,754	1,993	2,000	2,000	80%	80%
2015 / 1	2,375	784	1,891	1,900	1,899	80%	80%
2015 / 2	2,539	1,121	2,552	2,625	2,625	103%	103%
2016 / 1	2,492	459	2,309	2,400	2,400	96%	96%
2016 / 2	2,636	253	1,705	2,147	1,808	81%	69%
2017 / 1	2,542	137	1,276	1,981	1,504	78%	59%
2017 / 2	2,837	1	852	2,128	1,713	75%	60%
<b>Grand Total</b>	<b>24,678</b>	<b>7,768</b>	<b>16,927</b>	<b>19,518</b>	<b>18,277</b>	<b>79%</b>	<b>74%</b>

We believe there are various inaccuracies in the OW Supplemental Report of Findings – Newfoundland Taxis (OW Supplemental Report) that we would like to address. We’ve included an excerpt from the OW Supplemental Report (page 3) for reference:

*“...The AA gives little weight to the actual loss experience that has emerged with its selection of the Weighted Method. We are not aware of the use of this method in other rate applications.*

*As stated in our report, there are a range of reasonable estimates for the AA to select. It is important to note, while the results of the Weighted Method may be the FA AA’s best estimate, - another actuary reviewing the same data could (and likely would) have a different best estimate. We further note that “best estimate” is defined contextually. That is, a “best estimate” in the context of liability estimation may be different than a “best estimate” in a ratemaking context.*

*It is our opinion, the B-F Method (the mid-range estimates) instead of the Weighted Method provide a reasonable estimate of the ultimate loss amounts in a ratemaking context.”*

In reference to OW being “not aware of the use of this method in other rate applications”, it is not clear if this is in reference to FA rate applications, or more broadly. This would not be accurate in reference to FA rate applications, as FA has used this approach in its valuations for many years (including periods before FA changed service providers from Eckler to EY). We assume, then, that the reference is in relation to other insurers’ filings. We do not have direct access to such information. However, we know from experience that, whereas FA directly uses the work of its valuation team (with their specialized focus) and its Appointed Actuary (AA) as a direct input to the pricing work, some insurers instead have the “valuation” (i.e. selection of ultimate) exercise completed by the pricing team to support their rate review work. There are many possible reasons for this, one of which may be that their internal valuation work is not done at a level of detail consistent with their rate indication work (perhaps not at the coverage level, or not at the jurisdiction level or rating class level, for instance). FA’s valuation work, completed quarterly, has the only constraint that the valuation is complete at a “business segment” level (private passenger vs. non-private passenger) rather than at the specific rating class level, but we do not see this as an issue, and we see great benefit at being able to leverage the quarterly valuation work that is done by the specialists who focus on valuation work and the various specific methodologies for valuation at their disposal.

The “Weighted Method” is a percentile weight between two valuation methods ultimates (Incurred Chain Ladder method and Expected Loss Ratio method) based on the actuary’s judgement. The Bornhuetter-Ferguson (B-F) proposed OW selections is also a percentile weight between two valuation ultimates (Incurred Chain Ladder method and Expected Loss Ratio method) based on the actuary’s judgement of chain ladder (link-ratio) selected development. It is our experience and understanding that using percentile weight between valuation methodologies is not an uncommon Industry approach in valuation or rate filings in Canada (that is, it is not uncommon for a valuation actuary to select an ultimate as a weighted average of two or more other valuation methodologies).

The FA approach to weighting between the “expected” method result and the “chain ladder” method result is based on our view that the “expected” estimate is “devoid” of “process variance” (i.e. reflects the “expected” or “average” level), whereas the “chain ladder” method would reflect “process variance” (as it is based on reported-to-date activity, which includes process variance – that is, variance from the “average” expected level expected to be reported-to-date). Weighting methodologies between these two estimates then simply reflect how much weight is given to “process variance” as found in the link ratio

estimate. For the B/F method, the weight given is a function of the chain ladder estimate itself (and hence is not independent of the chain ladder estimate) which then introduces another “source” of process variance estimate recognition. In contrast, FA’s approach of having weight selected completely independently of the chain ladder method allows the FA AA to explicitly control the timing of process variance estimation recognition. The FA AA firmly believes this is a reasonable, and in his view, a preferable approach for the development ages to which it is generally applied (again, the FA AA will apply judgement where deemed appropriate to move off of the pre-determined “default” selections at various ages of development).

In reference to OW noting *“that “best estimate” is defined contextually. That is, a “best estimate” in the context of liability estimation may be different than a “best estimate” in a ratemaking context.”*

This is not our interpretation of standards of practice that apply to professional actuaries in Canada. The Canadian Institute of Actuaries’ Standards of Practice (effective February 22, 2018) defines best estimate as without bias [section 1120.12]. The Standards of Practice does not provide for “best estimates” of the same item (in this case the selection of ultimate) to be defined “contextually”.

OW also commented, *“... another actuary reviewing the same data could (and likely would) have a different best estimate ...”* and opined, *“... the B-F Method (the mid-range estimates) instead of the Weighted Method provide a reasonable estimate of the ultimate loss amounts in a ratemaking context.”* We comment on these statements below.

OW and FA’s AA (Liam McFarlane of Ernst & Young) are not reviewing the same data exactly, as it would be too voluminous for the complete data set considered by the FA’s AA to be included as part of the rate filing submission. FA’s AA also has access to granular subsets of data (including individual large loss claims reporting), results of servicing carrier audits, and can discuss claims and underwriting practices with FA and FA Servicing Carrier management. Further, FA’s AA completes valuation reviews across all FARM jurisdictions each calendar quarter. This provides a holistic view of the FARM and allows for assessment of trends in claims and reporting and consistent monitoring.

FA’s AA, Mr. McFarlane, has extensive experience, being the AA or Peer Reviewer for a number of insurers and reinsurers in Canada, consulting Actuary for the New Brunswick Insurance Board, and having spent a number of years as the chairperson of the Canadian Institute of Actuaries’ Committee on Professional Conduct. Furthermore, as FA’s AA, Mr. McFarlane takes a consistent valuation approach across all jurisdictions FA operates in. The valuation process (including methodologies used) is discussed with FA’s Actuarial Committee (an advisory Committee of senior Industry actuaries), and the FARM fiscal year-end 2017 valuation was peer reviewed by an external actuary (Barb Addie of Baron Consulting).

With respect specifically to the December 31, 2017 valuation of FARM non-PPV Newfoundland & Labrador – Bodily Injury coverage, in reference to the most recent three accident half-years (AHY2016/2-AHY2017/2), the BF method indicated loss ratio of 63% is significantly lower than the most recent prior period (AHY2015/1-AHY2016/1) BF method indicated loss ratio of 93%. With respect to the relative immaturity of this recent accident period relative to the long-tailed nature of the Bodily Injury coverage, and in the absence of a significant structural change (the expected loss method

does take into account premium impact related to change in business mix and approved rate changes), as at December 31, 2017, FA's AA stands by his selections of ultimate loss as best estimate selections, and reasonable and appropriate in both a liability (valuation) and ratemaking context.

We do not believe the OW conclusion / opinion that "... *the B-F Method (the mid-range estimates) instead of the Weighted Method provide a reasonable estimate of the ultimate loss amounts in a ratemaking context.*" is supported. As stated earlier, we do not believe there to a "contextual" difference in the FA AA's valuation work and how that work should be interpreted or altered in relation to a rate filing. In our view, it would be unreasonable for FA to present an alternative ultimate estimate for valuation purposes and pricing reviews in relation to the same accident period. FA has no intention to do so, and we respectfully believe that the Board of Commissioners should accept the FA AA's estimates as best estimates for the purposes of the filing.