New Brunswick Insurance Board

DECISION

IN THE MATTER:
Of a rate revision application for the Echelon General Insurance Company
With respect to automobile insurance rates for
Private Passenger

Hearing Date: January 14 and February 10, 2020

Heard at Fredericton and Saint John
New Brunswick

PANEL:	Ms. Marie-Claude Doucet, LL.B.	Chair
	Mr. Marven Grant	Board Member
	Mr. Robert McSorley	Board Member

APPEARANCES:

Applicant:	**Echelon General Insurance Company**	
	Mr. Matthew T. Hayes, LL.B.	Legal Counsel
Intervenors:	**Office of the Attorney General**	
	Mr. Michael Hynes, LL.B.	Legal Counsel
	Mr. Jean-François Dupuis, LL.B.	Legal Counsel
	Consumer Advocate for Insurance	
	Ms. Michèle Pelletier, LL.B.	Consumer Advocate

Decision Rendered: March 17, 2020

Summary

[1] Echelon General Insurance Company (the "Applicant" or "Echelon") is one of the few insurers in New Brunswick to provide automobile insurance to the particular segment of consumers who fall between the standard market and the residual market (the insurer of “last resort”). The consumers falling under what is categorized as the non-standard market generally are drivers that represent higher risk than those in the regular market. The Applicant plays a significant role in the Province’s voluntary marketplace by providing availability of insurance to these “high risk” who otherwise would face the higher costs of insurance in the residual market.

[2] The Applicant filed a Rate Application with respect to automobile insurance rates for Private Passenger (PPV) in New Brunswick requesting approval for an average rate increase of 51.1%, based on an indicated rate increase of 78.1%.

[3] Pursuant to subsection 267.5(1) of the *Insurance Act,* R.S.N.B., 1973 c. I-12 (the “*Act*”), the New Brunswick Insurance Board (the “Board”) convened a Panel of the Board to conduct an oral hearing (the “Hearing”) on January 14, 2020 at the Convention Centre, in Fredericton. The Hearing to consider the Applicant’s rate revision application was held partially on January 14, 2020 and completed on February 10, 2020.

[4] Pursuant to subsection 19.71(4) of the *Act*, the Office of the Attorney General (“OAG”) intervened, questioned the Applicant by way of written interrogatories, called their own expert witness, presented written and oral submissions, and cross-examined the Applicant’s witness. The Office of the Consumer Advocate for Insurance (“CAI”) intervened as well, adopted the position of the OAG, presented an oral submission and cross-examined the Applicant’s witness during the Hearing.

[5] Further to an exhaustive examination of the evidence and submissions made by all parties, the Panel determines that the indication proposed by the Applicant is not justified in its entirety.

[6] The Applicant is ordered **to adopt the revised average rate change of 44.0%** for the reasons set out below.

[7] The approved rates will be effective on April 1, 2020 for new and May 15, 2020 renewal business.

Exhibits

[8] In the Hearing process, the Panel accepted the following exhibits from the Applicant and the OAG as part of the Record of Hearing:

EXHIBIT	DESCRIPTION	DATE
1	Original Private Passenger Rate Filing	April 10, 2019
2	Additional Communication	April 16, 2019
3	Round 1 Questions from EY	June 6, 2019
4	Round 1 Response to EY and Amendment 1	June 14, 2019
5	Round 2 Questions from EY	July 12, 2019
6	Round 2 Revised Questions from EY	July 15, 2019
7	Round 2 Response to EY and Amendment 2	July 24, 2019
8	Amendment 3	August 13, 2019
9	EY Actuarial Summary Review	August 13, 2019
10	Round 1 Questions from OAG	November 1, 2019
11	Round 1 Response to OAG	November 8, 2019
12	Round 2 Questions from OAG	November 15, 2019
13	Request for Clarification on OAG Questions dated Nov 15, 2019	November 18, 2019
14	Response to Request for Clarification on OAG Questions dated Nov 15, 2019	November 19, 2019
15	Round 2 Response to OAG	November 22, 2019
16	Intervenor Report from OAG	December 23, 2019
17	Final Written Submission from Echelon	January 7, 2020
18	Final Written Submission from OAG	January 7, 2020

1. Introduction

[9] The Board is mandated by the Legislature with the general supervision of automobile insurance rates in the Province of New Brunswick. In order to fulfill that mandate, the Board exercises the powers prescribed by the *Act*. One key responsibility for the Board is to ensure that rates charged or proposed to be charged are just and reasonable. Under the *Act*, each insurer carrying on the business of automobile insurance in the province must file with the Board the rates it proposes to charge at least once every 12 months from the date of its last filing. An insurer must appear before the Board when:

- The Insurer files for a rate change more than twice in a 12-month period,
- The Insurer files rates where the average rate increase is more than 3% greater than the rates charged by it within the 12 months prior to the date on which it proposes to begin to charge the rates, or
- When the Board requires it to do so.

Procedural History

[10] The Applicant filed a rate revision application for the PPV category on April 10, 2019. The original overall indication of the Filing was 39.40% and the Applicant proposed an overall average rate increase of 30.00%.

[11] In the process of responding to questions from the Board's consulting actuaries and the OAG's consulting actuaries, the Applicant submitted multiple Amended Filings amending its rate indications and selections as follows:

Filing	Date	Indication	Selection
Original (withdrawn)[1]	January 22, 2019		
Original (revised)	April 10, 2019	39.40%	30.00%
Amendment 1[2]	June 13, 2019	44.70%	30.00%
Amendment 2[3]	July 22, 2019	66.27%	30.00%
Amendment 3[4]	August 13, 2019	66.27%	30.00%
Amendment 4[5]	January 7, 2020	78.1%	51.1%

[12] The Board issued a Notice of Hearing on September 20, 2019 and convened a Panel of the Board to conduct an oral hearing on the matter. The OAG and the CAI both provided notice of their respective intention to intervene in the Hearing.

[13] Prior to the Hearing, the OAG submitted two sets of interrogatories to the Applicant, to which answers were provided. Furthermore, pre-Hearing written submissions were provided by the Applicant and the OAG to the Panel.

[14] The Panel allowed the direct and cross-examination of expert actuarial witnesses by the parties during the Hearing. Mr. Éric Millaire-Morin, who is a Fellow of the Casualty Actuarial Society and Fellow of the Canadian Institute of Actuaries, testified as the expert witness for Echelon. Mr. Rajesh Sahasrabuddhe from Oliver Wyman (OW), a Fellow of the Casualty Actuarial Society and an Associate of the Canadian Institute of Actuaries, appeared as the expert witnesses for the OAG.

[15] No other witness appeared before the Panel at this Hearing.

[1] Echelon's original filing submission on January 22, 2019 proposing rate changes along with significant changes to rating Algorithm. The Company withdrew this filing and re-submitted the proposed rate changes and rating algorithm changes in separate filings. The filing submitted on April 10, 2019 contained proposed changes to the current rate level only, with algorithm changes including differential analysis to be submitted subsequently.
[2] Modification to expense ratio, increase in the selected commission rate of the variable expense ratio from 9.6% to 12.5%, the Company's standard commission rate, and removal of the HST adjustment factors.
[3] Modification in the complement of credibility from Industry loss ratio (unadjusted for mix-of-business) to adjusted Facility Association and Industry loss ratios. Modification in indicated expense ratio to include 2018 data and be calculated relative to direct earned premiums instead of direct written premiums.
[4] Modification including additional justification regarding the complement of credibility approach.

[16] Finally, the Panel heard brief closing submissions from the Applicant, the OAG and the CAI following the *viva voce* evidence.

2. Evidence and Positions of the Parties

Echelon General Insurance Company

[17] The Applicant is an insurance company that plays an important role in the New Brunswick marketplace by providing alternative insurance solutions for non-standard auto risks. It is one of the few insurers in New Brunswick servicing automobile customers classified as non-standard auto risk, and who have limited insurance options available to them. Echelon insures personal vehicle types, hard to place commercial vehicles, and provides property and liability insurance and bonding solutions for unique commercial risks. The Applicant's mission is to provide solutions to consumers faced with limited options while filling gaps in the insurance market that mainstream insurers are not addressing.

[18] Historically, the Applicant filed for rate changes representing approximately the Facility Association's (FA) - which provides insurance to Residual Market - rates minus 5 to 10%, without providing full actuarial justification due to the company's limited exposures and data. However, due to the Applicant's substantial growth in New Brunswick over the past two years, in 2019 the Board directed Echelon to file a RFG1 - Major Rate Filing, including full actuarial justification.

[19] The Applicant's Filing forms the main portion of its submission and the evidence before the Panel.

[20] Echelon initially presented its Filing to the Board requesting an overall average rate increase of 30.00%. The Applicant proceeded to make 5 amendments to its rate application between the date of filing and the Hearing. In its last amendment, the Applicant requested an overall rate increase of 51.1%, on the basis of a rate indication of 78.1%.

[21] The following sets out Echelon's final amended indicated and proposed rate changes to the existing rates by coverage:

	Indicated Rate Change	Proposed Rate Change
Third Party Liability - Bodily Injury (TPL-BI)	+ 97.9%	+ 60.0%
Third Party Liability - Property Damage (TPL-PD)	+ 1,114.4%	+ 463.0%
Direct Compensation Property Damage (DCPD)	+ 67.1%	+ 50.0%
Accident Benefits (AB)	+ 9.0%	+ 5.0%
Uninsured Auto (UA)	- 28.1%	- 20.5%
Collision	+ 83.8%	+ 65.0%
Comprehensive	+ 77.9%	+ 55.0%
Underinsured Motorist (UM) – SEF44	- 42.5%	0.0%
Total	**+ 78.1%**	**+ 51.1%**

[22] The rates contained in the Filing are estimated assuming a target return on equity (ROE) of 12.0%, a pre-tax investment rate on cash flow and investment rate on capital (ROI) of 2.53%, and a 1.8:1 [6] premium to surplus ratio. Proposed average rates would increase from the current average of approximately $1,595 to approximately $2,410.

[23] In its Opening Submission made to the Board at the Hearing, Mr. Robin Joshua, President of Echelon provided the following reasoning for its proposed substantial rate increase:

> Historically, Echelon has set its rates at a fixed difference of five percent below those of Facility Association. In an effort to position ourselves as a – as a standard market alternative, rather than a last choice market. To be sustainable over the long term, we think our average premium levels should stand ten to fifteen percent lower than Facility. Today, Facility Association rates are nearly double of Echelon's. This rate gap is not reflective of the – of the volatility of the risks that we write. These risks are very similar to the business being written

[6] Fluctuating in accordance to amendments to the indication and selection adopted throughout the review process.

> by Facility. The substantial difference in pricing, however, has led to – to the unprecedented growth, Echelon's Non-Standard Auto Book in New Brunswick.
>
> During the four-year period, 2016 – since 2016, our cumulative growth rate is over twelve hundred percent. This magnitude of growth significantly surpasses our risk appetite and is simply unsustainable as a niche insurer. Our actuaries' estimate – estimates, which do not consider our deteriorating 2018 and '19 results indicate that a rate increase of seventy-eight percent is required. We are, however, asking for a fifty – fifty-one percent rate to reach the level of profitability traditionally allowed by the Board. The calculation of this rate increase considered factors unique to specialty or niche insurers and pressures not faced by standard providers.
>
> Our indicated rate increase would support our continued operations as a special insurer and position us to deliver on our mission of providing choice and solutions to consumers not served by the mainstream market. As a result, consumers would be afforded opportunity to purchase insurance at a lower premium than Facility, but at a premium level that will no longer drive the growth and profitability problems we have been experiencing for the last several years. […] the current state of things is untenable. What we are proposing today would provide us with a needed platform to deliver on our mission of bringing speciality insurance solutions to New Brunswick consumers, families, and businesses and would ignite our transformation from an unsustainable niche player to an alternative insurance provider in New Brunswick.
>
> [Transcript, January 10, 2020; pp. 12-14]

[24] In its direct evidence, Mr. Millaire-Morin also described Echelon's target market as follows:

> […] as I mentioned that you know, our target risk is the one that goes to the Facility. So, that's why we wanted to put ourself – you know, we used to in many of the filing until 2017, we were always file like say, Facility minus two or minus five. Since 2017 something happened and – and we (inaudible) diverge that but really, you know, we're a specialized insurer and we target risk that the standard market doesn't want. So, our target is, you know, people or citizens from New Brunswick that has a lot of claims, a lot of conviction, have impaired driving, you know, license suspension. Those are, you know, the type of risk that – that we want to offer. So, that's what we're targeting.
>
> [Transcript, January 14, 2020; pp. 20]

[25] The Applicant submits that the Filing was prepared utilizing sound actuarial methods and practices, that the assumptions contained therein are reasonable and that the Filing has been completed in accordance with the Board's RFG 1 Rate Filing Guidelines.

Office of the Attorney General

[26] The OAG was provided with the Filing and all related documents. The OAG was also given the opportunity to further query the Applicant through a written interrogatory process, which provided for two rounds of interrogatory questions and answers. At the conclusion of the interrogatory process, and prior to the Hearing, the OAG made a final written submission to the Board summarizing its position. Finally, the OAG was provided an opportunity to present its evidence through questioning of its witness, actuary Rajesh Sahasrabuddhe, and to cross-examine Éric Millaire-Morin the witness for Echelon, at the Hearing.

[27] The OAG's Final Written Submission challenged the Applicant's position on the following issues:

1) Loss Trend selection for the BI coverage
2) Loss Trend selection for the PD coverage
3) Loss Trend selection for the Collision coverages
4) Loss Trend selection for the Comprehensive coverage
5) Complement of credibility; and
6) Premium-to-Surplus ratio

[28] In its Final Written Submission, the OAG summarized its findings and conclusions to the Panel as follows:

> We reviewed the rate level indications developed by Echelon, and, in so doing, examined all aspects of Echelon's ratemaking procedure. There are several aspects of Echelon's analysis of its rate level needs where we believe that alternate calculations and/or assumptions should be considered by the Board.

> Following Echelon's general methodology for determining its rate level needs, but with alternate assumptions, judgments, and calculations that we believe to be more appropriate**, we find its overall rate level change need to be less than the +51.1% change proposed by Echelon**. **Specifically, our estimate of the required rate level change for Echelon is +24.5%.** In this report, we present the basis for our conclusion.
>
> Our findings are based on the information contained in the application, responses provided by Echelon to our questions, and our review of insurance industry statistical experience in New Brunswick as published by the General Insurance Statistical Agency (GISA).
>
> [Exhibit 18; Record, page 2583]

[29] Finally, the OAG submitted to the Panel that should it find the alternative assumptions presented by its expert actuary more reasonable than those presented by the Applicant, the Applicant should be directed to revise the above noted rate level change indications and consider those amended indications in reaching its decision on the present Filing.

Consumer Advocate for Insurance

[30] At the Hearing, the CAI presented the Panel with oral submissions and challenged the Filing submitted by the Applicant.

[31] The CAI submitted that the rate increase requested by the Applicant is neither just nor reasonable and adopted the position of the OAG in relation to the Filing.

[32] In her oral submission, the CAI submitted that the insurance rates in New Brunswick have to be just and reasonable, including to the policyholders of New Brunswick, as automobile insurance is a mandatory product in our province and since New Brunswickers are required to use motor vehicles in their daily lives.

[33] The CAI finally suggested that the Board should request the Applicant to adopt the alternatives presented by the OAG and give the benefit of any uncertainty to the insurance consumers of New Brunswick.

3. Analysis and Reasons

[34] The Panel has reviewed and considered all of the evidence before it and representation made by the parties.

[35] In giving their evidence, the witnesses for both the Applicant and the OAG testified to the validity of their assumptions and actuarial methodologies and, under cross-examination, answered questions challenging their positions, notably on the appropriateness of the actuarial approaches and methodologies adopted.

[36] The Panel recognized the actuarial expertise of the witnesses of the Applicant and the OAG for the purpose of the Hearing. The Panel's decision reflects that neither expert's opinion was accepted entirely, and that each assumption and methodology decision is laced with layers of data, assumptions and judgement. As set out below in more detail, on some issues, the Panel accepted the Applicant's evidence as satisfying its evidentiary burden of just and reasonable, while in others, the Panel accepted contrary positions, and found that the Applicant failed to meet its burden of proof.

[37] The Panel addresses each of the substantial issues individually below:

1) Loss Trends Selection

[38] The selection of loss trend rates requires the analysis of past data and the application of professional judgement in order to select trend rates for each coverage. Loss cost trends can be derived by separately selecting frequency and severity trend rates reflecting past experience

and future expected results. The selected frequency and severity trend rates are then combined to determine loss cost projection factors.

1.1 Basis of Trend Analysis

[39] In its loss trend analysis, the Applicant used a regression model applied to industry PPV experience as of December 31, 2017 in order to determine and select its past and future trends. The Applicant relied on single semester models for frequency and severity for the TPL-BI and AB coverages, as well as for the DC and Collision frequency models, and opted to rely on all accident half-year experience for all other loss trend models, including PD, Comprehensive, DC severity and Collision severity. As for the period structure selected, the Applicant assumed a change in loss trend rate at July 1, 2013 for the BI and AB coverages, and a change on January 1, 2013 for PD, DC, Collision and Comprehensive coverages.

1.2 Third Party Liability - Bodily Injury Trend Selection

[40] The Applicant and the OAG used different models to support their respective positions in terms of frequency and severity trend rates for TPL-BI.

[41] In doing its regression analysis of its estimate of Industry PPV ultimate claim costs, the Applicant developed three models for frequency and severity using time period 2006 to 2017 data, the first model fitting all semesters of data, the second fitting semester 1 data only, and the third model fitting semester 2 data only. The Applicant also tested additional parameters for seasonality and the cost level impacts of the July 2013 Minor Injury Regulation (MIR) Reform and Harmonized Sales Tax (HST) increase effective July 1, 2016.

[42] Based on its modeling approach, the Applicant selected the model fitting semi-annual accident year data over the period of 2006-H2 to 2017-H2, using semester 2 data only, and including a MIR scalar parameter at 2013-2 of +25.5%, Echelon selected pre and post MIR frequency trend rates of -7.2% and -2.9%. At the Hearing, the Applicant testified it selected the model producing

the better fit based on statistical results. The adjusted R-squared resulting from the selected model is 90.7%. The MIR scalar, pre and post MIR frequency trend parameters result in p-values of 0.00, 0.00 and 0.06 respectively. The p-value of the post-MIR frequency trend parameter is slightly above the 5% threshold for statistical significance. For BI severity, the Applicant fit a model on semi-annual accident year data to period 2006-H2 to 2016-H2, using semester 2 data only, and selected pre and post MIR trend rates of +7.7% and +8.2%. The adjusted R-squared achieved with this model is 88.2%. The pre and post-MIR severity trend parameters result in p-values of 0.00 and 0.03. The Applicant's BI loss cost trend model resulted in a pre-MIR trend rate of -0.1%, a post-MIR past and future trend rate of +5.1%.

[43] The OAG disagreed with the Applicant's trend selection methodology and presented the Board with models for both frequency and severity which it suggested are more appropriate. For frequency, the OAG's consulting actuary's model suggested the use of industry data over a period of 20 years (1998-2 to 2018-1), including scalar parameters at 2003-H2 (corresponding to a 21.9% decrease) and 2013-H2 (corresponding to a 34.9% increase), and a parameter for seasonality (fitting accident half years). The implied annual fitted frequency trend measured by OW (the OAG's consulting actuaries) results in a trend of -6.3% and is suggested to be applied for both the past and future. The adjusted R-squared resulting from the OW's model is 96% with p-values of 0.00.

[44] As for severity, OW's model again used the same time period of 20 years, included scalar parameters at 2003-H2 (corresponding to a 35.9% decrease) and 2015-H2 (corresponding to a 24.4% increase) and fitted accident half years based on industry data up until June 30, 2018. The implied annual fitted severity trend measured by OW results in a trend of 5.0% and is also suggested to be used for both the past and future. The adjusted R-squared resulting from OW's model is of 86.8% with p-values of 0.00. Based on the frequency and severity trend models selected, past and future loss cost trend rates of -1.6% are selected by OW. OW fit of the implied loss cost model results in an adjusted R-squared of 92.8%.

[45] In its submissions, the OAG raised several concerns with the Applicant's trend selection notably that the Applicant's trend analyses do not include the latest available data released by the General Insurance Statistical Agency (GISA). The OAG argued that the Applicant ought to use the latest available industry experience through June 30, 2018, released in November 2018, and available at the time of Echelon's application preparation. Furthermore, the OAG challenged the Applicant's selected models which only consider the second half of each accident year – taking into account only half of the available experience. The OAG argued that the use of only half of the data disregards valuable insight that may transpire from the excluded data and ignores correlation between the first and second half of each accident period. The approach suggested by the OAG would be to include all data points and include a seasonality parameter in the models.

[46] The OAG additionally disputed the Applicant's consideration of the MIR reform, submitting that the parameterization coincidental with the MIR included in the frequency model results in the model independently fitting pre and post MIR frequency trend rates and a change in the level of frequency. The use of separate parameters for the pre and post MIR trends in the Applicant's severity model is similarly challenged by the OAG. The OAG's proposed model for frequency, considering the impact of the 2013 MIR reform, includes a lift impact of 34.9% at 2013-H2, being slightly higher than Echelon's. As for severity, the OAG suggests a lift impact of 24.4% at 2015-H2. The OAG submits that the Applicant's severity model, which ignores the one-time lift in severity between 2015-H1 and 2015-H2 is flawed and overestimates the future severity trend rate and rate level change need. The Panel was however not provided with compelling evidence by the OAG to support a scalar parameter at 2015-H2, some two years after the MIR reforms took place.

[47] In light of the above noted arguments and evidence presented with respect to TPL-BI trends, the Panel makes multiple findings. Firstly, on the matter of industry data to be used, the Panel finds that the Applicant should have used the latest available data pursuant to the Board's Filing Guidelines which provides that "*loss trends should be based on a review of the most recent available New Brunswick Industry-wide experience*". The Panel acknowledges that the 2018-H1

data may not have been published at the time the Applicant first began preparing the Filing, but it certainly had ample time and opportunity to integrate it into its modelling for all coverages, as it filed its completed Rate Application approximately five months after publication of the data. Given the number of subsequent revisions the Applicant made to its Application between the original filing and the Hearing, the Panel would have expected it to include the latest data available into its modeling.

[48] In reviewing both the Applicant's and the OAG's suggested models and their statistical values, the Panel concludes that it cannot do a direct comparison of each models' validity strictly based on R-squared values and p-values, given that different time periods and data points were used to produce the selected models. The Panel therefore weighted the statistical values of the Applicant's and OW's models on a stand-alone basis to determine their robustness.

[49] Despite the high adjusted R-squared values obtained with the Applicant's selected frequency and severity models, the Panel agrees with the OAG's argument that Echelon's reliance on single semester models, considering only half of the data available, unreasonable. This approach ignores data points that provide valuable insight on the full historical experience. The Panel finds that the Applicant's rationale was not sufficient to support the selection of those models. The Panel would expect to be provided with a strong rationale for excluding half of the data, and in the present case, the explanation was wholly inadequate.

[50] On the basis of the above and the evidence presented as a whole, the Panel finds that the Applicant failed to meet its burden to prove that its loss trend selections for TPL-BI, on frequency, severity and loss cost, are reasonable. Though the Panel accepts that alternative models suggested by the OAG were possible reasonable models, the Panel finds that the Applicant's own frequency and severity model when all semester data points are included do provide reasonable modeling.

[51] In order to avoid further delay in the present Rate Application process and in finding that the inclusion of the latest half-year of data published by GISA would not have an expected material

impact on the selected trends, the Panel will not require the Applicant to include the latest data published by GISA in its loss trend analysis for the purpose of the present Application. That said, the Panel does caution the Applicant that in future filings, the Board will expect the most recent available data to be used, especially in circumstances where it has had ample opportunity to incorporate this data into its modeling prior to submitting the filing.

1.3 Third Party Liability - Property Damage Trend Selection

[52] For the TPL-PD coverage, the Applicant based its regression analyses on measuring frequency and severity trend rates using the time period 2008-H1 to 2017-H2. As it did for BI, the Applicant developed three models for frequency and severity: 1) fitting all semesters of data, 2) fitting semester 1 data only, and 3) fitting semester 2 data only. The Applicant also tested additional parameters for seasonality and the cost level impact of the HST increase.

[53] For frequency, the Applicant selected the model fitting all semesters of data and selected annual pre and post 2013 frequency trend rates 0.0% and -4.1%, with an adjusted R-squared of 44.4% with p-values for the seasonality and post 2013 trend parameter less than 0.05. As for the severity trend rates, based on the model fitting all semesters without an HST reform parameter, Echelon selected a pre and post 2013 trend of 0.0% and +8.7% with an adjusted R-squared of 57.6%, with a p-value less than 0.05.

[54] In its Final Written Submission, the OAG conceded that the Applicant's selected annual frequency trend result was reasonable, despite disagreeing with its approach. The OAG however argued that the Applicant's selected severity model presented several shortcomings. Again, the OAG referenced that the Applicant's trend analyses did not include the latest data released by GISA and argued that the Applicant ought to have used the latest available industry experience which was released months prior to the company Filing. The OAG also disputed the inclusion of separate parameters for pre and post 2013 trends, resulting in the inclusion of non-significant parameters or the model being overly sensitive to the most recent years of experience. The OAG

argued that this methodology resulted in an overestimation of the future severity trend rate and the rate level change required.

[55] The approach suggested by the OAG was to do a regression analysis on the same period as the one selected by Echelon, but to include an intercept parameter and one-time shift in severity of +31.4% between 2014-H1 and 2014-H2. The OAG's selected annual severity trend rate is therefore of 0.0%, including a +31.4% scalar at 2014-H2, resulting in an adjusted R-squared of 52.3%. The OAG's selected annual severity combined with the Applicant's selected frequency trend results in the OAG selecting an annual loss cost trend of -4.1% with a scalar increase of +31.4% at 2014-H1.

[56] The Panel finds that both the Applicant and the OAG's TPL-PD severity trend models are reasonable. During the Hearing, the Applicant conceded that the OAG's model did allow for a slightly better fit and had higher residual degrees of freedom and based on this would accept the OAG's selected severity trend rate of 0.0%.

1.4 Collision Trend Selection

[57] As for TPL-BI and PD, the Applicant based its regression analysis for Collision on measuring frequency and severity trend rates and then combining the selected trend rates to derive the loss cost trend rate. The Applicant developed the same three models fit to semi-annual accident year data for the period 2008-H1 to 2017-H2 as for other coverages in its analysis: 1) fitting all semester data points, 2) fitting semester 1 data only, and 3) fitting semester 2 data only. The Applicant also tested additional parameters for seasonality and the cost level impact of the HST increase.

[58] The Applicant ultimately selected the frequency model relying only on semester 2 data. Based on this frequency model, the Applicant selected pre and post-2013 trend rates of -3.4% and +3.2% respectively. The adjusted R-squared achieved with this model is 75.8% with a p-values of 0.00 for both trend parameters included. In the selection of its severity model, the Applicant

however, opted for the model including a seasonality parameter to semi-annual accident year data. The severity trend rates selected by the Applicant pre and post 2013 are of 0.0% and +3.2% respectively. The adjusted R-squared resulting from this model is 86.7% with a p-value less than 0.05. Based on these selected models, the Applicant's selected past and future annual loss cost trend rate is of +6.5%.

[59] In regards to the Collision models selected by the Applicant, the OAG argued the presence of multiple shortcomings: the modelled data does not include the 2018-1 data point, the selected frequency trend relies on only second half year data, and the models include separate parameters for pre and post 2013 trends.

[60] The OAG presented alternative frequency and severity models. For frequency, OW presented two reasonable models. The first model was fit to all data points, including trend parameters at 2001-H1 and 2005-H1, based on industry data as of June 30, 2018. The OAG's modelled incremental regression coefficients for the periods prior to 2001-H1, from 2001-H1 to 2004-H2, and 2005-H1 onward corresponds to trend rates of 0.0%, -14.4%, and +17.6% respectively, with only the two latest trends being statistically significant with p-values of 0.00. The resulting frequency trends for the period subsequent of 2005-H1 is +0.6%. The adjusted R-squared achieved with this suggested model is 88.5%. The second frequency model presented by OW was fit to all data points from 2005-H1 to 2018-H1 resulting in an annual trend rate of +0.8%. The p-value for the trend parameter is 0.06, which is slightly higher than the 5% threshold for statistical significance.

[61] For severity, the OAG submitted that a more appropriate model would fit to all data points, include seasonality and scalar parameters at 2001-H1 and 2005-H1, and would include industry data of 2018-H1. The 2001-H1 and 2005-H1 scalar parameters correspond to a 14% increase and a 30.6% increase respectively. The annual severity trend rate associated with this model is +1.8%. The adjusted R-squared associated with this model is of 95.2%, with all p-values below 5%. On the basis of the frequency and severity selected trend rates, the OAG's selected past and future annual loss cost trend rate is of 2.4%.

[62] In light of the evidence presented, the Panel finds that the Applicant did not adequately support the reasonableness of its collision frequency model, using semester 2 data only, and therefore failed to meet its burden to demonstrate the rate arising therefrom would be reasonable. The Panel notes that the OAG did present a reasonable and well supported frequency model. In the absence of other reasonable alternatives, the Panel requires the Applicant to adopt the second collision frequency model proposed by the OAG. While both collision frequency models were supported by OW, direct compensation for vehicle damage was introduced in New Brunswick effective January 2005, a change which had a direct impact on Collision claim frequency pre and post 2005. While the p-value of the trend parameter in the second frequency model is slightly above the 5% threshold for statistical significance, the Panel finds that the OW's first model includes a number of data points and additional trend parameters pre-2005 that are not relevant to the post-2005 trend period. For the severity model, the Panel finds that the Applicant's selected model does provide reasonable modeling, having opted to include both semesters of data.

[63] While the OAG's approach for frequency modelling was accepted in this particular case, in light of the other significant strengths noted above, the Panel offers the caveat that it may be appropriate in some instances to use a period shorter than the 20 years proposed by the OAG, to determine loss trends for the Collision coverage.

1.5 Comprehensive Trend Selection

[64] For the Comprehensive coverage, the Applicant based its regression analyses on measuring frequency and severity trend rates using time period 2008-H1 to 2017-H2. Again, the Applicant developed three models for frequency and severity: 1) fitting all semesters of data, 2) fitting semester 1 data only, and 3) fitting semester 2 data only. The Applicant also tested additional parameters for seasonality and the cost level impact of the HST increase.

[65] For frequency, the Applicant selected the model fitting all semesters of data and selected annual pre and post 2013 frequency trend rates +3.3% and 0.0% with an additional parameter for seasonality. The adjusted R-squared achieved with this suggested model is 41.0%. The p-values for the seasonality and pre-2013 trend parameters pre 2013 are both below 0.05. As for the severity trend rates, based on the model fitting all semesters and including a seasonality parameter, the Applicant selected pre and post 2013 trend rates of -3.0% and +9.1%. The adjusted R-squared achieved with this suggested model is 88.3%. The p-values for the seasonality, pre and post 2013 trend parameters are respectively 0.00, 0.01, and 0.00. In combining the frequency and severity trends, the Applicant selected a past and future loss cost trend per annum of +9.1%. In its analysis, as a test of reasonableness, the Applicant compared its selected loss cost for this coverage with the loss cost trend in the industry for Nova Scotia and Ontario and finding them very close, the Applicant concluded it to be a good estimate.

[66] With respect to the Applicant's trends for Comprehensive, the OAG presented the same concern as for the other coverages, that the Applicant's models did not include the latest available data (2018-1) published by GISA in November 2018. On the frequency trend selected by the Applicant, the OAG conceded the end result to be reasonable, despite disagreeing with the adopted approach. The frequency model for Comprehensive was therefore not discussed further by the OAG or explored in more detail at the Hearing.

[67] For severity, the OAG raised concern on the length of the experience period used to determine the trends, and argued a longer-term trend would be more appropriate. Notably, the actuary for the OAG suggested that a more appropriate severity model would include a seasonality parameter and fit accident half-years between 2009-H1 and 2018-H1 based on industry data. The implied annual trend associated with the OAG's fitted severity model is of +4.5%. The past and future annual loss cost trend rate selected by the OAG in light of its selected frequency and severity models is +4.5%.

[68] The Panel concludes that both the Applicant's and the OAG's selected severity models are reasonable. That said, the Panel finds the OAG's model to be more robust and accepts the

argument that utilizing a longer trend period in these circumstances is more reasonable. Furthermore, the Applicant's approach which assumes and tests for a change in trends pre and post-2013 for physical damage coverages should not provide the basis for the template in reviewing trend models. The Panel finds that the OAG presented a more reasonable and better supported severity model, and was found to be superior to the Applicant's model.

2) Complement of Credibility

[69] A complement of credibility is used by an insurer when its own data is limited and/or lacks statistical reliability. In such circumstances, insurers can employ various complement of credibility methodologies in conjunction with its own data to project expected losses.

[70] In previous filings, the Applicant used the balance of credibility weight to the net trend rate as the complement of credibility. This methodology is based on the assumption that the prior rate change resulted in rates that were adequate. In the current filing, the Applicant proposed the use of a different complement of credibility methodology, finding the net trend method to inadequately reflect its rate level change need at present.

[71] The Applicant therefore assigned the balance of credibility weight to a rate indication based on FA's experience to the extent it is credible. Where the sum of the Applicant's and FA's credibility weights still did not reach 100%, the Applicant assigned the remaining balance of credibility weight to the rate indication based on industry (excluding FA) loss experience. The Applicant then adjusts FA and industry's (excluding FA) data sets for the differences in mix of business from the Applicant's risk portfolio. The methodology employed derived the mix of business adjustment using the exposure distribution data available through GISA for the following rating variables: territory, years licensed, driving record, liability limit, comprehensive deductibles and collision deductibles. The Applicant proceeded to calculate the average differentials and the GISA distribution data to identify the mix of business adjustment factors.

[72] In its Final Submission, the OAG expressed numerous concerns with the current complement of credibility approach adopted by the Applicant. Firstly, it noted that the Applicant assumes that FA's experience constitutes an appropriate basis for the credibility complement and assumes its own portfolio of risk to be reasonably similar to FA's. The OAG suggested there are numerous differences between FA's and the Applicant's portfolios that should have been more robustly considered. Most significantly, FA, as insurer of last resort, must accept all risks, whereas the Applicant has discretion to be more selective through its underwriting rules. Also, the Applicant has more control over its portfolio of risks through its broker force management as compared to FA. The OAG submitted that by assuming no difference in between FA and the Applicant's risk profiles, the latter overstates its rate indication.

[73] In addition, the OAG suggested the Applicant's new methodology is flawed for the following reason: the Applicant uses an inaccurate mix of business adjustment factors due to the exclusion of many rating variables from the calculation, the approximation of a mapping of the years licensed distribution to the rating class distribution (potentially adding to the inaccuracy of the mix of business adjustment factors); and to the use of the IAO Actuarial Consulting Services AON Reed Stenhouse Inc. (IAO) advisory differential factors instead of Echelon's differentials. The OAG also cited a significant gap between the Applicant's implied indicated base rate compared to FA's current base rate as of April 2019 for Bodily Injury coverage as an example suggesting the approach is inaccurate.

[74] The OAG suggested a more appropriate complement of credibility approach in the present case would be to use FA's most recent rate increase approved by the Board in excess of the Applicant's, from 2016 onward. To the extent the combined Applicant and FA experience is not fully credible, the OAG suggests the third tier of credibility weight to be assigned to the net trend rate for a period of two years (approximate time between the current rate effective date and the proposed effective dates), and the inclusion of an adjustment for the Applicant's perceived rate inadequacy at the time of the prior rate filing.

[75] The Panel concludes that the general approach used by the Applicant in determining the complement of credibility to be reasonable based on the following:

1) The Applicant has adjusted the FA and industry (excluding FA) data for differences in mix of business with the Applicant's distribution of risks using GISA data to the extent possible;

2) Where differences in rating class definitions exist, the Applicant has made assumptions to map years licensed to rating class for differences in the Applicant's and industry's rating class definition.

[76] However, the Panel also concludes that the approach is not without issue. The Applicant has improperly used IAO's rating differentials when calculating the mix of business loss adjustment factors. By using IAO's rating differentials, the Applicant's adjustment does not align FA and industry excluding FA loss experience to the company's average premium levels. The Panel would expect the Applicant to use its own rating differentials in the calculation of the mix of business loss adjustment factor.

3) Profit Provision

[77] For the calculation of its overall rate level change need, Echelon includes a profit provision targeting a return on equity (ROE) of 12%, a premium to surplus ("P/S") ratio of 1.8 to 1, as well as a pre-tax return on investment rate of 2.5%.

<u>Selection of Premium-to-Surplus Ratio</u>

[78] In deriving its profit provision assumptions, the Applicant based its approach on an iterative capital model. A change of underlying assumption was however, made this year to increase the capital levels required by increasing the Minimal Capital Test (MCT) ratio used from 150% to

225%, resulting in a decrease in P/S ratio from 2.62 to 1.8. To that effect, Mr. Millaire-Morin explained during cross-examination:

> Echelon is in different position — has the high risk, you know, we think for the same volume because we're high risk and we think for the same premium, we should be allowed to have more capital to support because there's more variability while the Facility has — has been paid by all the insurance so they — you know, that — that importance of having capital to support the premium is — is to a less extent. And also — yeah, also, you know, also we believe that, you know, the surplus support the loss experience not the premium as I mention earlier. I think I already talk about that but, you know, and because Echelon premium is — is insufficient more than the other player, that's why we feel that it's appropriate to use a premium surplus lower than one to (sic) two. And being a one — one point two, one point eight is good. Also to be noted that, you know, and I think it's, you know I raise that is we're using, you know, that premium to surplus is kind of an old way of allocating capital. Now with OSFI, they're using the MCT. And, you know, the way we did the model is more like on the MCT basis, and I think E & Y they — in their final conclusion they acknowledge that this is a methodology that has been used by other carrier. And us having, you know, higher proportion of premium — in — in BI and AB, you know, from a premium to surplus or MCT perspective, we will be required to have more capital because the longer tail — that's — that's the OSFI model allocate that. So — and that's our new model on the MCT, so those two are the main reason why we believe that the one point eight is more appropriate for Echelon. […]
>
> So now with the MCT that's why we came up with the, you know, an output of one point eight. But that's more like a — a result than a — an input. And as I said, as a high-risk carrier, I think, you know, we need to have more capital available to support the premium because of that.
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> [Transcript, January 14, 2020; pp. 162 -164]

[79] The OAG argued that a P/S ratio of 2:1, such as the one assumed by FA pursuant to its recent Filing and the P/S ratio generally selected by insurers in the industry, should be adopted by the Applicant. At the Hearing, Mr. Sahasrabuddhe testified that the P/S ratio should be reflective of the insurer's risk portfolio and the type of risk written by an insurer. To that effect, Mr. Sahasrabuddhe testified to the following:

Q. And so 1.8 would be more appropriate to a riskier portfolio than a 2 to 1, correct?
A. It — it would — it would depend because remembering that — that — that the dollar of premium that the average risk that — the average risk in the Echelon portfolio has is higher than the dollar — so Echelon's rates are higher, right? I guess that's effectively what I'm getting at. So we'd have to evaluate it. It's not such an easy decision to pick one or the other and our only comment is that the 1.8, we find, is — is different than other insurers, including FA and other voluntary insurers base their rate indication on. We're — we're not really commenting on appropriateness. We're commenting on consistency.

Q. Okay, so you didn't do what I'll call any market analysis of it. You simply want a consistent basis from insurer to insurer.
A. That's correct.

[Transcript, February 10, 2020; pp. 123-124]

[80] No evidence was provided by the OAG specifically in respect to the use of the MCT ratio used by the Applicant to derive its P/S ratio.

[81] The Panel finds that the general approach used by the Applicant is reasonable and the use of a P/S ratio diverging from the ratio of 2:1 typically selected by other automobile insurers in the industry is supported in light of its unique higher risk portfolio. However, the Panel concludes a more appropriate basis in deriving the P/S ratio from the cash flow model approach would be to use the Company's internal MCT ratio, as suggested by the Board's Actuary. The Panel therefore orders the Applicant to use its internal ratio of 215%, as opposed to the selected 225% to derive its P/S ratio.

4. Decision

[82] Though it is common to see insurers amend their filings further to the Board's consulting actuaries' actuarial review and/or to the interrogatory questions posed by the OAG, it is highly

uncommon to see a number of revisions such as were made by the Applicant after its initial Filing, and more specifically after being notified of the Oral Hearing. The number of revisions made by the Applicant, made the Board question whether the Applicant provided its "best estimate" assumptions. Furthermore, the defensive approach adopted by the Applicant since being notified that an Oral Hearing would be held to further examine this Filing, coupled with certain derogatory remarks made by the Applicant's witness during the hearing concerning the Board's processes left the Panel with a serious concern regarding the integrity of the Filing.

[83] Despite the numerous interrogatories from the Board and the OAG, and the probing of all of the evidence throughout the detailed Hearing, the Panel remains unconvinced it was provided with Echelon's best estimates and assumptions. That said, the Panel acknowledges the indisputable fact that ultimately, the Applicant has been in a state of rate inadequacy for the past few years, which led to unexpected and unsustainable growth in its portfolio. As a result of the Applicant's rate inadequacy, policyholders have benefited from lower automobile insurance premiums over the past years, while the portfolio was too small to trigger a more detailed filing. While this may appear favourable to consumers, and the consequence now is that by approving rates to bring Echelon to rate adequacy, many consumers will suffer from rate shock when rates settle back to where they should have been.

[84] In light of the Board's mandate to ensure just and reasonable automobile insurance rates, the Panel is not simply conducting an actuarial or mathematical exercise. It is required to weigh in the insurance's interest of sustainability and right to make a reasonable profit against the interests of consumers, including rate stability, predictability and affordability. Echelon's niche of providing insurance for higher risk drivers is another factor that was considered by Panel given a lack of insurance options other than being placed in the Facility Association, where they will pay even higher premiums. On that point, the Panel recognizes the instrumental part played by the Applicant in the New Brunswick marketplace, bridging the gap between the standard insurers and the Facility Association, ultimately to the benefit of many New Brunswick rate payers.

[85] For the reasons set out above and the evidence as a whole, the Panel finds the Applicant's Filing is not just and reasonable in its entirety. Following the Hearing, the Panel required the Applicant to supply some sensitivity analysis to consider changes to the indicated rate increases and a comparison to the FA approved rates. In addition to requiring Echelon to modify the indications, as set out herein, the Panel does not accept the proposed rate requested by Echelon. Accepting the need for a non-standard insurer in the range below FA rates, and with the noted concerns to the various iterations of the Filing from the Applicant, the Panel determines that a weighting of all factors leads to the acceptance of an average rate change of +44.0% for the current year.

[86] The Panel therefore orders it ***to adopt the average rate change of +44.0%.***

[87] The approved rates will be effective on April 1, 2020 for new business and May 15, 2020 for renewal business.

Dated at Saint John, New Brunswick, on March 17, 2020.

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Marie-Claude Doucet, Panel Chair
Chair, New Brunswick Insurance Board

WE CONCUR:

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Marven Grant, Board Member

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Robert McSorley, Board Member