

Filing Guidelines for Change in Rates and Rating Programs

Insurers should refer to [Bulletin 03-2022](#) for information on what has changed in the July 1, 2022 version of the filing guidelines. Refer to [Bulletin 03-2022](#) for changes for the September 23, 2022 version with updates replacing Appendix A with requirement to file electronically through CARS.

A. GENERAL INFORMATION

Section 602 of the *Insurance Act* and Sections 2, 4 and 5 of the Automobile Insurance Premiums Regulation require insurers to make application and obtain approval for the establishment of a new rating program or for revisions to an existing rating program. The AIRB has guidelines for both prior approval and file and use filings. The applicable filing type is determined based on these guidelines.

Filing Requirements

The purpose of these guidelines is to communicate the requirements for prior approval and file & use filings and to provide a methodological approach for use by insurers in preparation of their filing. [Insurers are encouraged to contact the AIRB prior to the development of a filing. In some instances, the AIRB has the discretion to waive certain filing guideline requirements.](#)

The guidelines referring to *Other than Private Passenger Vehicles* (Other than PPV) apply to miscellaneous classes¹ including all-terrain vehicles, ambulances, antique vehicles, collector vehicles, commercial vehicles, farm vehicles, hotel & country club vehicles, interurban vehicles, mopeds, motorcycles, motorhomes, off-road vehicles, private buses, public buses, school buses, snow vehicles, taxis & limousines, trailers & campers, and utility trailers.

This guideline provides the requirements and criteria for prior approval and file & use filings. The guideline indicates where a requirement applies specifically to a particular filing type, where not specified it applies to all filing types.

Approval Process

Filings must be submitted through the Collection and Reporting System ([CARS](#)). The AIRB no longer accept filings submitted by email. Compile the filing into a PDF document except where noted to be in Word or Excel and then attach the documents in CARS.

Insurers will receive an email confirming the filing has been successfully submitted from CARS. The AIRB will review the filing for completeness based on these filing guidelines and inform the insurer of any additional information required to complete the filing.

The AIRB's target is to provide a decision within sixty (60) days for prior approval filings from the date the filing material is deemed complete (all information requested has been submitted and all responses to questions have been received). For file & use filings, the AIRB will notify the insurer of its decision within 30 business days after submission of the filing (all information requested has been submitted through CARS). If the AIRB does not provide notice of a decision within 30 business days, it will consider the filing deemed approved and will provide notice of approval.

¹ Unless otherwise noted

The target days are exclusive of office holiday closures.

Determining the Applicable Filing Type

The AIRB has the discretion to waive certain filing guideline requirements under certain circumstances; therefore, the AIRB may require the insurer file a certain filing type when it decides it is appropriate, in addition to the criteria for each filing type identified below.

Insurers obtaining rate changes through a file and use filing are **required to submit a full filing with rate indications every three years** to confirm their level of rate adequacy/deficiency.

The AIRB permits a **file & use filing** where:

For Any Class of Vehicle
<p>The insurer is:</p> <ul style="list-style-type: none">a) Updating rate group tables, such as an IAO Rate Groups or AIRB approved version of the Canadian Loss Experience Automobile Rating Tables (CLEAR). The insurer should contact the AIRB to determine eligibility for a file and use filing if the insurer uses an alternate method other than IAO/CLEAR or to supplement IAO/CLEAR to establish rate groups or differentials.b) Implementing, removing or revising an endorsement, and has contacted the Superintendent of Insurance prior to submitting a filing to the AIRB proposing to introduce or revise a conditionally approved endorsement (CAE).c) Introducing new or modifying the criteria for discounts or surcharges.d) Changing the rate manual with no impact on premium.e) Changing underwriting criteria with no impact on premium. The AIRB does not require the submission for approval of changes to eligibility rules or for the sole purpose of clarification with no change in intent to the AIRB. Insurers will provide the AIRB with an updated underwriting manual regardless whether or not they submitted the changes to the AIRB for approval.f) Changing existing differentials for rating variables (including base rate) with an increase no greater than +10.00%.g) Revising their capping procedure, with no impact to base rate.h) Introducing less than +10.00% dislocation to any policyholder prior to capping over 12-month period for Private Passenger Vehicles (PPV) and Motorcycles, and +15.00% for other vehicle types. This threshold does not apply when updating rate group tables or changes to endorsement premiums.i) Changing a rating program where the insurer has less than 3,000 exposures per class of business, and where the filing otherwise meets the criteria for file and use.

PPV, and Motorcycles	Other than PPV ² , Commercial, and Interurban Vehicles
<p>j) proposing a net increase in overall rate level +5.00% or less (for basic and overall coverage) in one policy year. For rate increases, the renewal business effective date must be at least 12 months since the last approved rate increase.</p> <p>For initial implementation of Guidelines, any rate increase must be at least 12 months since the last approved rate increase or decrease implemented through a full filing.</p>	<p>k) proposing a net increase in overall rate level +10.00% or less (for basic and overall coverage) in one policy year. For rate increases, the renewal business effective date must be at least 12 months since the last approved rate increase or decrease implemented through a full filing.</p>

The AIRB permits a **non-actuarial prior approval (Full) filing** where the insurer has submitted a filing with rate indications for each coverage within the last three years³.

For Any Class of Vehicle
<p>a) The indications in the most recent filing must support the proposed rate changes.</p> <p>b) The insurer is filing to change their rating program using advanced modeling including but not limited to general linear, general additive or machine learning models.</p>

PPV & Motorcycles	Other than PPV, Commercial, and Interurban Vehicles
<p>c) The insurer is changing existing differentials for rating variables (including base rate) with an increase greater than +10.00%.</p>	<p>d) The insurer is proposing to file for a category of automobile insurance not previously written by the insurer (other than PPV only).</p>
<p>d) The insurer is introducing more than +10.00% dislocation to any policyholder prior to capping. This threshold does not apply when updating rate group tables or changes to endorsement premiums.</p>	<p>e) The insurer is introducing more than +15.00% dislocation to any policyholder prior to capping. This threshold does not apply when updating rate group tables or changes to endorsement premiums.</p>

² Other than PPV includes: all-terrain vehicles, ambulances, antique vehicles, collector vehicles, farm vehicles, hotel & country club vehicles, mopeds, motorhomes, off-road vehicles, private buses, public buses, school buses, snow vehicles, trailers & campers and utility trailers.

³ The three-year period is determined by the date of submission of the most recent full filing. The three-year period is required for PPV, Motorcycles, Commercial, and Interurban classes of vehicles.

The AIRB requires an **actuarial prior approval (Full) filing** where:

For Any Class of Vehicle (Except where noted)	
a)	The insurer is seeking approval of a new rate indication.
b)	The insurer is seeking a rate change greater than permitted through other filing types or is implementing changes, which the AIRB deems require actuarial review.
c)	The insurer does not currently have an approved rating program and proposes to establish a rating program to enter the market (PPV, Motorcycle, Commercial or Interurban only).
d)	It has been three years since the last full filing (PPV, Motorcycle, Commercial or Interurban only).

The AIRB **may** consider exempting insurers from a prior approval filing if the insurer has no credible data.

Principles and Expectations for Rating Programs

- 1. The components of the rating programs are evidence based and reasonably predictive of risk.** Evidence including objective, verifiable and available data support the algorithms, differentials and weighting of rating variables. The data is sufficient to predict claims costs and consumer outcomes.
- 2. The components of the rating programs distinguish fairly between risks.** There must be a fair distinction between risks based on relevant cost-related factors. Therefore, an insurer can only charge different premiums to different groups of risk because they represent different costs and claim experience. An insurer cannot charge different premiums to different people for reasons other than cost (for example, based on demand, willingness to pay, or income levels). For example, if the insurer proposed to price two territories differently, it will be because the claims of one territory are more frequent or severe than the other. The same applies for the weighting of all other rating factors. The rating program should minimize anti-selection of risks. For example, pricing of individual or group risks should not discourage underwriting of risks through strategic pricing or modeling.
- 3. The rating program does not impair the solvency of the insurer or provide excessive returns for the insurer.** An insurer collects a premium with the expectation of a rate return consistent with the AIRB's profit provision over the short and long term.
- 4. Changes in rates are reasonable.**
 - a) Changes in weighting of rating factors
Rating programs including a change in the weighting of a rating factor related to driving behavior must be reasonable. The weight of a rating factor related to driving behavior should diminish over a reasonable period:
 - Accidents and claims should have limited impact on premiums after six years.
 - Convictions should have limited impact on premiums after three years.
 - Surcharges related to Criminal Code convictions may apply for up to four years following conviction.
 - b) Unbundling of rating variables.
No individual's premium can increase by more than 10% per year solely due to unbundling a rating variable into individual elements.
 - c) Potential impact on consumers is considered.
The AIRB scrutinizes the impact of the changes proposed in the filing on consumers, and the AIRB expects insurers to take steps to minimize impact to consumers.

5. **There is clear communication to consumers about premium changes.** Insurers will provide simple, adequate and effective notice to consumers, as well as agents and brokers, of upcoming premium changes so consumers can make an informed decision regarding their coverage.

Other Filing Notes:

Acquisitions or Mergers

Insurers proposing the full or partial harmonization of rating programs due to an acquisition or merger can submit a non-actuarial prior approval filing for PPV, motorcycles, commercial and interurban. The AIRB may permit file and use for Other than PPV vehicle types. The initial filing must propose a revenue neutral impact on overall rate level for each insurer. The insurer must include a description as to how they will adjust the rating programs, any interim steps to full harmonization and dislocation tables for each insurer in the filing documentation. Prior to developing an acquisition filing, the insurer should contact the AIRB to discuss.

Rate Change Approvals

The AIRB will not approve a rate change greater than the alternative indication, regardless if the indication is positive or negative.

The AIRB considers the rate change magnitude by basic and additional coverage in addition to the total overall rate change when approving filings.

Insurer Request to Withdraw Filing

The AIRB recognizes our actuarial review may result in an alternative indication less than the rate change the insurer has proposed. Should the insurer decide to withdraw the filing based on the alternative indication, they may do so; however, in accordance with the Automobile Insurance Rate Board Fees Regulation, the AIRB may charge the insurer for the actual costs of external actuarial review.

Filing Format

Subject to the guidelines set forth in Section C, the filing should contain the informational sections in the order as outlined below:

Section	Contents
1.	Cover Letter
2.	Table of Contents
3.	Summary of Information (CARS)
4.	Certifications of the Officer and Actuary (Appendix B)
5.	Actuarial Support (Full Filings Only, Appendix D)
6.	Rating Rule Changes
7.	Final Rates/Rate Level Change
8.	Dependent Categories (if applicable)
9.	Communication to Policyholders
10.	Rate Manual
11.	Rating Profiles (Appendix C)

B. DEFINITIONS

Refer to the [Technical Guidance - Changes in Rates and Rating Programs](#) document for definitions related to all filing guidelines.

C. GUIDELINES FOR EACH SECTION OF THE FILING

SECTION 1: COVER LETTER

Include a cover letter outlining all the proposed changes, effective dates of changes, rationale for changes and full contact details of the individual authorized to act as contact on behalf of the insurer with every filing. Ensure the named contact person is able to respond to questions posed by the AIRB or its consulting actuary and accept correspondence from either on behalf of the insurer relating to this filing.

SECTION 2: TABLE OF CONTENTS

This section contains a listing of the filing contents for Sections 3 through 10.

SECTION 3: SUMMARY OF INFORMATION ([CARS](#))

The summary of information section (in CARS) contains key information on the nature of the proposed rate level or rating program changes. All filings should include a completed summary of information in CARS. All data used in the Actuarial Support section (Section 5 & Appendix D) for a **full filing** should reconcile to the information entered in in CARS.

SECTION 4: CERTIFICATES OF THE OFFICER AND OF THE ACTUARY ([APPENDIX B](#))

4a) Certificate of the Officer

Include a signed Certificate of the Officer form, Appendix B1, with each filing.

4b) Certificate of the Actuary (For Full Filing only)

Include a signed Certificate of the Actuary form, Appendix B2, when providing actuarial support, and a signed Rate Filing Completion Confirmation Checklist, Appendix B3.

SECTION 5: ACTUARIAL SUPPORT (For Full Filings Only)

This section is applicable to **full filings** only. If completing a file & use filing, proceed to [Section 6](#).

Provide detailed actuarial support for any rate level change. A description of the data and narrative to be included is in [Appendix D](#).

SECTION 6: RATING RULE CHANGES

Quantify the rate level impact resulting from the rating rule changes and reflect the impact in the proposed rate level changes as follows:

6a) Rating Rule Changes for Classification Variables

- any change to a rating rule for a particular classification;
- a current and proposed distribution of the classification affected by the rating rule change to determine the average premium change (shift);
- impact on the overall rate level; and
- all assumptions and detailed calculations (in Excel) to support the rate level change.

6b) Rating Rule Changes for Discounts and Surcharges

- any change to a rating rule for a discount or surcharge.
- the rating rule applicable to a newly proposed discount or surcharge.
- a current and a proposed distribution of the business affected by the rating rule change to determine the average premium change (shift) and impact on the overall rate level.
- all assumptions and the rationale to support the use of the rating rule.

SECTION 7: FINAL RATES/RATE LEVEL CHANGE

Provide exhibits illustrating current and proposed rating algorithms, base rates, discounts/surcharges, and differentials, as either current or proposed **highlighting any changes**. Provide explanatory material in support of the proposed changes.

7a) Algorithms

Include algorithms for all coverages, including discounts and surcharges.

7b) Base Rates (in Excel)

7c) Differentials (in Excel)

7d) Discounts and Surcharges (in Excel)

7e) Rate Capping

Rate capping is a tool to manage the impact of a rate change on policyholders, refer to Rate Capping in [Technical Guidance - Changes in Rates and Rating Programs](#) for further information.

7f) Endorsements

To revise current endorsements, provide own loss experience to support the changes. If own experience is not available, provide information the insurer used in its decision-making to set the rates. Contact the [Superintendent of Insurance](#) prior to submitting a filing to the AIRB when proposing to introduce or revise a conditionally approved endorsement (CAE).

7g) Rate Group Tables

Insurers will:

- take the rate group drift into account, even if an insurer is simply updating the annual vehicle rate group tables (for full filings only);
- not off-balance premium impact due to rate group updates to coverages where the rate group is not used as a rating variable;
- indicate the version of rate group table being used; and
- indicate any applicable capping procedures.

Insurers may use alternate methods (other than CLEAR) or supplement CLEAR to establish rate groups or rate differentials.

7h) Changes to Rating Territory Definitions

Refer to Rating Territories in [Technical Guidance - Changes in Rates and Rating Programs](#) for further information. Depending on the approach used for determining rating territories and corresponding differentials, actuarial support may be required.

7i) Introduction of New Rating Variables

Refer to Rating Variables in [Technical Guidance - Changes in Rates and Rating Programs](#) for further information if the insurer is seeking to introduce a new rating variable. The insurer should review all proposed rating variables with AIRB staff prior to inclusion in a filing.

7j) Calculation of Rate Level Change and Average Rate

Describe and demonstrate how the rate level impact of changes to base rates, differentials and discounts or surcharges, in combination with any off-balance which may be applied, are used to calculate the overall rate level change on a per coverage basis. Reconcile this calculation with the Proposed Overall Rate Level Change from CARS, Question 4a.

Provide background and detailed calculations (in Excel) to support the current and proposed average rate calculation under CARS, Question 4b.

7k) Calculation of Final Rates

Describe and demonstrate how current base rates by coverage are transformed into proposed base rates in combination with any off-balance.

SECTION 8: DEPENDENT CATEGORIES

Provide the following for dependent categories of automobile insurance:

- i. The rate level effects of the proposed changes for each coverage;
- ii. The calculations validate the rate level effect of the proposed changes; and
- iii. A copy of the rating rule stipulating the linkage to the category of automobile insurance.

SECTION 9: COMMUNICATION TO POLICYHOLDERS

Provide a description of how the insurer will communicate the proposed changes, specifically addressing any impact to policyholder premiums and copies of any formal policyholder communications.

SECTION 10: RATE MANUAL

It is the insurer's responsibility to ensure all underwriting guidelines are compliance with all relevant legislation. Only submit changes to underwriting guidelines related to premium and rating programs with the AIRB. Any changes, additions or deletions to the rating rules, denote definitions or text in the proposed rate manual by utilizing **tracked changes in a Word document**.

Submit a final rate manual (**without** password protection) to airb@gov.ab.ca within 30 days of rate filing approval. The electronic copy of the complete rate manual submitted to the AIRB must be identical to any hard copies or versions distributed to anyone, including brokers, agents or other vendors.

SECTION 11: RATING PROFILES (APPENDIX C)

Complete the rating profiles according to the risk description specified. Provide both current and proposed rating criteria for each of the rating profiles as required on an un-capped basis. The Appendix C is optional at the time of submitting the filing. For full requirements for rating profiles, refer to Rating Profiles in [Technical Guidance - Changes in Rates and Rating Programs](#).

D. ACTUARIAL SUPPORT (APPENDIX D)

This section is required for all **full filings**.

Actuarial Support Requirements

Provide the data and narrative description of all ratemaking steps for each of the specific rate changes proposed for each sub coverage (bodily injury, property damage, direct compensation property damage, accident benefits, underinsured motorist, all perils, collision, comprehensive, specified perils and endorsements), even if a rate level change is not proposed for each coverage. Provide details regarding endorsements separately, if not possible; indicate which coverage the endorsements are assigned to. Each subsection, outlined below, will contain the necessary documentation for each individual coverage.

Describe provide adequate actuarial documentation and support for the rate levels including sufficient detail to enable the reviewer to trace the resulting rates from the raw data experience and other supporting data.

Submit all analysis to support the filing in an Excel worksheet. The Excel worksheet will either include the formula in the respective cells as opposed to the just the value or the formulae and location of source data used in those calculations will be footnoted on each page of calculations.

Reconcile all support provided to the Summary of Information (entered in CARS).

The support for an overall rate level change will include the following subsections, in the order set out below. Label each section or subsection according to the numbering scheme provided and contain all data, data definitions and sources, and any narrative necessary to explain or clarify the various ratemaking steps.

D.1) Overall Description of the Ratemaking Methodology and Summary

An insurer may use either a pure premium or a loss ratio ratemaking approach. Indicate the type of approach used, outline the process in a summary narrative, and include an overall description of the data. Include detailed information on the data in the appropriate subsections. For example, third party liability loss data states whether it is for all limits combined or if it is for a specific (basic) limit.

Base the actuarial analysis on the insurer's own Alberta data of the vehicle category in discussion to the extent possible. If necessary to rely on outside data or a different source of internal data (such as affiliated insurer data), identify the source of the data, explain its' applicability and why the use of other data is more appropriate.

Exhibited and label data, outline procedures, and disclose and support any change to the ratemaking methodology, the underlying data, assumption or the selection method from the one used in the previous filing.

D.2) Development of Loss Experience

Note all losses considered together with Allocated Loss Adjustment Expenses (ALAE), and all references to "loss" should be referred to "losses and allocated loss adjustment expenses".

If considering ALAE separately from losses, provide the same detailed information as described for losses. Specifically:

- a) Provide the insurer's own current direct loss and claim count data. Explain where the data does not include the most recent half year.
- b) Use the insurer's own claims experience to the extent it is credible.
- c) Use Alberta specific claims experience for the filed category of insurance at the coverage level. Valuation data for loss reserving purposes may not satisfy this requirement.
- d) Data at the major sub-coverage level is generally required for estimating ultimate costs. Aggregation will be required to estimate the required change in rates. Subdivide claims experience at the major sub-coverage level considering homogeneity and credibility of the data. The following are the major sub-coverage in the GISA Loss Development Exhibits of the GISA Automobile Statistical Plan (ASP). Finer breakdown of claims experience may be determined to be more appropriate.
 - Third Party Liability - Bodily Injury
 - Third Party Liability - Property Damage
 - Direct Compensation Property Damage
 - Accident Benefits
 - Underinsured Motorist (SEF #44)
 - Collision
 - Comprehensive
 - All Perils
 - Specified Perils
- e) For each coverage and sub-coverage listed above, develop payment patterns for purposes of discounting claims. Show the interest rate selected by coverage for discounting purposes and the rationale for the selection.
- f) If the filing considers industry experience, use the most recent industry ratemaking data available. Accident full year and accident half-year loss and claim count development data on an industry-wide basis is generally available in April and early December, respectively.
- g) The AIRB considers insurer automobile experience collected by GISA under the Automobile Statistical Plan appropriate for ratemaking purposes. Insurers relying on alternative data sources should be able to reconcile closely with the Automobile Statistical Plan – Industry Exhibit (AIX) loss ratio and insurer loss development data reported under the ASP as of a common evaluation date. Provide a copy of the AIX data to demonstrate the ratemaking data is reasonably accurate and reconciles to the data used to support rate changes. Explain if the data does not reconcile closely to the AIX.

a) Loss Development⁴

Develop data to an ultimate level using an appropriate loss development procedure.

Provide the history of insurer incurred loss data valued at 12-month intervals (so-called "triangles" of loss valuations at various stages of development). Provide additional diagnostic triangles for average paid, average case reserve, open claim count, closed with payment, total closed claim count.

⁴ Refer to the approved [Industry Benchmarks Schedule](#).

If loss development for a partial accident year is used, provide comparable experience at the same level of maturity to support the selected loss development factors.

If using credibility procedures in loss development, disclose the selection of the credibility criterion, present the filing of the credibility standard, and disclose and support the complement of credibility.

Outline the specific loss development approach used in the filing and disclose the details of the calculations and supporting worksheets. Provide details and support for all judgments associated with the process of loss development (e.g., the selection of loss development factors). Reference to the selections made in the Appointed Actuary Report (AAR) is not sufficient support. If the selections in the AAR are based on combined data with different vehicle categories, provide the experience of the specific vehicle category in discussion to validate the selections.

Consider various methods in selecting ultimates, such as the claim development method, the expected claims method and the Bornhuetter-Ferguson method, based on incurred and paid claims. Provide a summary sheet outlining the ultimate claim projections derived from these methods by accident year and by coverage, and show how the final selection is made. Provide a comparison of ultimate losses for current and prior sections along with 10 years of calendar year paid as percentage of the previous calendar year's selection.

Identify:

- how endorsements are reflected in their experience; and
- any changes made to their reserving practice, what affect they have on selections, if any.

b) Claim Count Development⁴

Develop the claims to an ultimate level using an appropriate claim count development procedure.

Outline the specific claim count development approach used in the filing and disclose details of the calculations and supporting worksheets. Disclose and support all judgments associated with the process of claims development (e.g., the selection of claims development factors). Reference to the selections made in the AAR is not sufficient support. If the selections in the AAR are based on combined data with different vehicle categories, provide the experience of the specific vehicle category in discussion to validate the selections.

Base claim count development on the insurer's own Alberta data to the extent possible. In those few cases where the insurer relies upon industry experience to estimate its ultimate losses, explain why use of industry experience is more appropriate than basing ultimate loss estimates on its own data.

Provide the claim count triangles.

If claim development for a partial accident year is used, provide comparable experience at the same level of maturity to support the selected claim development factors.

If using credibility procedures in claim count development, disclose the selection of the credibility criterion, present the filing of the credibility standard, and disclose and support the complement of credibility.

c) Loss Trends⁴

Outline the specific loss trend approach used and provide details of the calculations. Disclose and support all judgments associated with the process of loss trend.

To the extent credible, insurers will to use loss trends based on their own experience, as they will reflect the dynamics of the insurer's business. Insurers experiencing major changes in their mix of business or practice will provide their own trending analysis for the coverages with credible data.

If using credibility procedures in estimating loss trend disclose and support the selection of the credibility criterion the application of the credibility standard, and the complement of credibility.

Support selected loss trends with an analysis of the indicated loss cost changes using an appropriate loss trend methodology. Rationalize and explain any loss trend selections, which do not follow the indicated loss trends. Include the date future trend is applied and the calculation of the average accident date.

The length of the trend period depends on the term of coverage offered by the insurer, the proposed effective date, and the valuation date of the loss data, disclose each of these items. If dividing trend into past trend and future trend components disclose and support each component in the detail described above including the date to distinguish between past and future trend.. Frequency and severity trends are often reviewed and analysed separately in the selection of trend factors, but consider correlations between frequency and severity.

Insurers without credible data may apply the most recent industry benchmark trends issued by the AIRB without providing additional support.

d) Treatment of Large Losses

Indicate how the insurer handled large losses in the experience period. If capping losses, demonstrate the number of such losses and the effects of the caps. Provide loss development data on a capped basis to support the estimation of ultimate losses on a capped basis.

Ensure large losses do not cause significant instability in the rates from one period to the next.

e) Catastrophe (or Excess Claim) Procedure

Comprehensive, specified perils and the comprehensive portion of all perils coverages are subject to losses arising from natural catastrophes. If using a procedure to estimate the impact of such losses, include the procedure, and calculation support details for the specific catastrophe procedure used, and all judgments associated with the process of calculating the catastrophe provision.

The catastrophe procedure will use of the insurer's own data to the extent possible, augmented where necessary by other relevant data, and include the insurer's definition of catastrophe.

f) Other Adjustments

Disclose, and support any other adjustments to the loss data. An example is an adjustment to historical loss experience to reflect product changes such as an upgrade or update to accident benefits coverage in developing indications for the period in which proposed rates will be in effect.

D.3) Unallocated Loss Adjustment Expenses (ULAE)⁴

Disclose and support the specific approach used to include a provision for ULAE, the calculations and all judgments associated with the estimation of ULAE.

The estimate of ULAE should make use of the insurer's own data for each category of insurance and coverage to the extent possible. If the actual ULAE costs vary over the experience period, the ULAE provision should also vary over the experience period. Explain any departures from the Automobile Insurance Financial Information (AIFI) (PPV only) data submitted to General Insurance Statistical Agency (GISA).

D.4) Health Cost Recovery (Third Party Liability Bodily Injury Coverage Only)⁴

The Government of Alberta assesses an annually adjusted amount to industry to cover the cost of health services provided to victims of automobile accidents. The annual levy is set as a percentage of estimated total written third party liability premiums for the upcoming year. Find the [Annual Levy](#) on the Treasury Board and Finance website. Use the current levy percentage (the new rate is effective January 1 each year).

Determine the amount included for Health Cost Recovery by multiplying the latest assessment factor by the on-levelled and trended earned premium for each year in the experience period. Then apply this amount to third party liability coverage as an additional fixed expense.

D.5) Premium

Describe the premium data, including the experience period and the source of the data.

- Direct premiums (prior to any reinsurance transactions or intra-company transfers) should be the basis for ratemaking and exclude the insurer's cessions to the Risk Sharing Pools.
- Direct premiums exclude premiums for the Facility Association Residual Market risk business.
- If an insurer chooses to charge less than the approved rates with un-filed discounts, bring the premium to the undiscounted basis.
- For PPV only:
 - For those risks where premiums are limited by Grid premiums, report the direct premium for bodily injury, property damage tort and accident benefits coverage to reflect the actual Grid premium and not the insurer's manual premiums for these risks.
 - Base rate indications on the premium, reflecting the reduced premium level due to the Grid.

a) On-level Adjustments

Adjust all premiums by coverage and territory used in the filing for previous insurer rate changes and Grid changes.

For PPV, reflect the maximum premiums charged under the Grid for risks whose premium is limited by the Grid rating program for bodily injury, property damage tort and accident benefits (as opposed to the insurer's manual premiums for those risks).

If using a loss ratio approach to ratemaking, adjust earned premium to the level of the current rates using an appropriate on-level procedure. Display both the actual earned and the current rate level earned premiums.

Display the calculations if on-level adjustments use a factor approach (e.g., parallelogram). If on-level adjustments calculating premiums at current rates through computer re-rating of policies (e.g., extension of exposures), provide a description of the process with a comparison of the results to the results obtained using the parallelogram method. Explain any significant difference.

Adjust on-level premium to an uncapped level and remove any un-filed discounts. (Note - this is different from the presentation of the premiums for risks whose premiums are limited by the Grid rate. In this case, the premium should reflect the actual premium charged under the Grid rate level.)

Include the insurer's history of rate changes by coverage for the prior five years.

b) Premium Trend

Consider premium trend for coverage with inflation-sensitive exposure bases or for coverage where a changing mix of exposures may result in a corresponding change in premium income to the insurer. The changing mix of exposures with respect to the makes and models of vehicles for physical damage coverage is an example of a change in mix of exposures, which could produce premium trend. (CLEAR accounts for premium trend in the development of the rate groups.)

Outline the specific premium trend approach used in the filing. Disclose and support the details of the calculations and all judgments associated with the process of premium trend.

Use of the insurer's own data to the extent possible. To the extent the premium trend measures changes in the mix of business over time for the insurer's own portfolio, a commensurate adjustment to the loss experience for the changing mix of business must also be included in the analysis. Identify any shift in mix of business, which might affect premium trend.

The general approach to estimating premium trend can be expected to remain reasonably constant over the years for the insurer. Disclose, explain, and support any change in either the approach or the underlying data from the prior rate filing must be. Treatment of premium trend should consider:

- a) The gradual shift in the distribution of business to newer and more expensive vehicles results in increases in physical damage premiums, and is reflected in deriving rate level indications. Otherwise, rate indications for certain coverages will be misstated.
- b) The Insurance Bureau of Canada determines and publishes annual industry average changes in rate group differentials. Insurers are required to provide their rate group distributions to support the selected rate group drifts.
- c) Take into consideration the rate group drift, liability limit drift and deductible drift in each filing.
- d) Separately identify finance fees or charges collected through premium instalment plans, and the associated costs, both as a dollar amount and as a percentage of premiums. Adjust premium payment patterns for policies with premium instalment plans. Document the delay in collection of premium and apply a factor. As noted in [D.6](#) below, consider the finance fee revenues in calculating the rate level change need - as either an additional percentage of premiums or a reduction to the expense provision. In either case, clearly present and support in the documentation.

c) Other Adjustments

Disclose, document, and support any other adjustments to premium data.

D.6) Other Expenses⁴

Divide other expenses (e.g., non-claims related expenses) between exposure variable (fixed) and premium variable (variable) expenses in a manner consistent with the way the insurer conducts its business, the manner in which it incurred expenses, and the type of unit insured. Disclose and document the details of this segregation of expenses. If the insurer belongs to an insurer group, use the actual expense for the insurer, do not use the expense allocated from the insurer group.

Direct expenses (e.g., prior to any reinsurance transactions or intra-company transfers) should be the basis for ratemaking and must not include insurer's costs to the Risk Sharing Pools or Facility Association Residual Market risk business.

Provide a copy of their submission to the GISA AIFI report for at least three years and GISA loss experience data for reconciliation with any internal data used in its analysis for **PPV only** to support its expense provision (and components thereof) included in the rate level indication calculations. Provide support for provisions for other expenses, and explain an expense provision significantly higher than the industry average set out in the most recent GISA AIFI. If the support is not sufficient, the AIRB may use the 75th percentile of the industry expense provision to calculate the alternative indication. Explain any one-time expenses creating significant variances in one or more years.

A reasonable approach is to treat commissions and premium taxes as premium variable expenses and treat portion or all of other expenses as fixed expenses. Treating all general expenses as a variable of premiums is generally inappropriate. Provide the commission structure including the standard commission rate.

Allocate exposure variable expenses across all coverages.

The AIRB permits the inclusion of contingent commission; provided it is supported and does not exceed 3.00% of premiums. State the standard commission and contingent commission provisions separately.

List marketing expenses separately. Normal marketing expenses may be included in the expense provision. Exclude extraordinary expenses due to expansions, mergers, acquisitions etc. Indicate if

there has been any major investment or marketing expenses and if so, how reflected in expense provision.

As noted in [D.5b](#)), state and clearly identify finance fee revenues. Treat finance fee revenues as either additional premiums or a negative expense (in either case as a percentage of premiums) in calculating the rate level change indication.

Exclude the expense provision established in respect of the Facility Association Residual Market. Treat Risk Sharing Pools as direct business and reflect in the direct loss and premium data.

a) Exposure Variable Expenses (Fixed)

Some expenses can be expected to vary in relationship to the number of units insured (exposures) rather than in relationship to the premium volume.

Outline the specific approach to estimating exposure variable expenses used in the filing and disclose details of the calculations. Disclose details and support for all judgments associated with the process of estimating exposure variable expenses.

Exposure variable expenses should make use of the insurer's own data. If it necessary to rely on outside data or a different source of internal data, identify the source of the data and provide an explanation of its applicability.

Exposure variable expenses may be subject to trend. The elements of trend discussed in subsection [D.2c](#)).

Explain any significant departure from insurer information submitted in its P&C Return.

b) Premium Variable Expenses (Variable)

Some expenses vary in relationship to the premium volume rather than in relationship to the number of units insured. Disclose and support the specific approach to estimating premium variable expenses used in the filing, details of the calculations, and all judgments associated with the process of estimating premium variable expenses.

Explain any significant departure from insurer information submitted in its P&C Return.

D.7) Profit Provision⁴

The AIRB has established target pre-tax profit provision by coverage (including Facility Association). Submit the rate indications based on target profit provision as a return on premium.

Provide the basis of the selected investment return assumption for discounting claim costs. The selected expected investment return considers the actual investment returns earned in the recent past as reported in the annual P&C return, and the expected investment returns reflecting the mix of all investment assets expected to be held by the insurer.

The selected claims payment pattern must be internally consistent with the estimate of the ultimate loss amount to be paid.

If the proposed rates are different from those which are actuarially indicated based on the target profit level (stated as a pre-tax return on premium), provide an estimate of the target profit level (stated as a pre-tax return on premium) underlying the proposed rates.

D.8) Credibility

The Alberta experience of the insurer may not be of sufficient volume to produce stable overall province-wide rate level indications, which are actuarially credible. In such cases, use credibility procedures as a means of augmenting the insurer's Alberta data.

Disclose and support the standard for 100% credibility and the formula for calculating partial credibility. The AIRB considers a commonly used standard of 1,082 claims for short tail, low severity/low volatility coverage, such as property damage and physical damage, reasonable. The

AIRB considers the use of a higher standard in long tail, high severity/high volatility coverage in the form of a multiplier of the base standard, reasonable. Assess the credibility of third party liability loss experience separately for bodily injury and property damage.

The standard for full credibility is expected to be higher for loss trends than for the insurer loss experience period (usually 3 to 5 years) used to determine the rate indications.

If using prior filing indications in the credibility complement and the AIRB has communicated significant differences to the insurer regarding its indications versus the AIRB's, give consideration to adjusting the prior indication for these differences before utilizing it in the current credibility complement. The trend period from the target effective date of the prior rate indication is no more than 2 years, to ensure the indication is based on current and relevant data.

If using an alternative body of data experience as a credibility complement, include exhibits to show the adjustments made to this data for risk distribution differences. Consider and adjust differences in loss costs or loss ratios due to differences in risk characteristics (other than distributional differences) between the data groups where appropriate.

D.9) Other Adjustments

Quantify any other adjustments made to the data, which affect expected premium, or losses, disclose, and support their effect on the rates in this section.

D.10) Summary Rate Level Indications

Provide summary sheets showing how the data combines with the adjustments and provisions outlined in subsections (D.2 – D.9).

Base indicated rate change on at least three consecutive years of the most recent actual experience. Apply an appropriate weight to each year, generally assigning more weight to the most recent years. If these weights are different from the insurer's prior filing, disclose, explain, and support the change.

Proposed rate changes should be in the same direction and same relative magnitude as the indicated rate change direction at the coverage level. For example, if the indicated rate change for third party liability is positive and the indicated rate change for accident benefits is negative, the AIRB expects a proposed increase in the rates for third party liability and a proposed decrease in the rates for accident benefits, even though both third party liability and accident benefits are required basic coverage. Provide explanations if a discrepancy is present. The proposed rate change cannot exceed the indicated rate change at an individual coverage level.

Explain significant differences at the coverage level between the indicated and proposed rate changes.

The data included in the experience period must be readily reconcilable with information provided in CARS for the insurer's filing.

Provide rationale and other considerations in support of the proposed rate changes.

D.11) Segmentation Analysis

Provide both indicated and proposed differentials for any rating variables (including discounts and surcharges) for which there are proposed changes. Provide an explanation where the proposed differentials are not moving in the direction indicated. Outline the classification analysis in detail.

The analysis should make use of the insurer's own data. If the insurer finds it necessary to rely on outside data or a different source of insurer data, identify the source of the data and provide an explanation of its applicability in the analysis.

Provide a comparison of the current, indicated, and proposed differentials by coverage for which rate differentials are changing. Include the written premium distribution and the exposure distribution by classification.

If credibility procedures are used, disclose in the same detail as outlined in subsection [D.8](#).

Test for and avoid reversals in its proposed differentials.

a) Predictive Models

For filings with rating variables and associated differentials based on predictive models including GLMs, the following information will assist in expediting the review.

- Description of the data underlying the model. Include jurisdiction; time period; evaluation date; number of records; what each record represents (e.g., vehicle, policy, etc.); discussion of any data adjustments (e.g., trend/ development/ capping/ catastrophe); full description of any non-company data; discussion of data validation procedures; discussion of missing or excluded data and treatment thereof.
- Model Type and description of model hyper parameters (e.g., “GLM with Tweedie error function and log link function”; “Boosted Regression Tree with learning rate of 0.01; final model has 1,000 trees”; etc.).
- Separately for each model, describe the target variable (e.g., frequency, severity, loss cost, etc.), and list all explanatory variables. For each explanatory variable, state if the variable is a control, fixed offset, or if the model indication is used for rating differential selection.
- Disclose any variables, which are either (a) in the rating plan but not included in the model; or (b) in the model but not part of the rating plan. Discuss rationale and explain how any relationships between variables inside and outside the model are considered and reflected in the rating plan.
- Validation of Model – describe data segmentation between training/holdout; provide lift chart on holdout data (minimum 10 deciles). Provide a description of how each “actual” and “expected” value is calculated.
- Model Insights – discuss the process for determining the inclusion or exclusion of variables within the models (provide measures of statistical significant and correlation between variables). For machine learning models, it is beneficial to provide measures including but not limited to permutation importance, Shapley Additive explanations (SHAP) values and plots, and partial dependence plots. Furthermore, explain how your model(s) guard against overfitting, and how credibility/confidence levels are considered
- Side by side comparison in Excel format, displaying (a) model indication; (b) current differential; (c) proposed differential; and (d) percentage differences. Include rationale for any selection not moving in the direction of the model indication.
- Validation of Selected Rating Plan – double lift chart (minimum 10 deciles) demonstrating improvement in segmentation vs. current rating plan.

Given a set of policyholder and vehicle attributes, provide sufficient details so the AIRB can determine the premium for an individual policyholder based on the details included in the filing. To expedite the review:

- Avoid use of obscure acronyms or system abbreviations to describe variable names.
- Provide any large tables of numbers (such as indicated vs. current vs. proposed) in Excel.
- Clearly label all graph axis and titles.
- If there are different models for each coverage, provide relevant information for each model.

Additional supporting information may be provided at the filer’s discretion or may be requested by AIRB staff or consulting actuary during the course of the filing review.