**General Feedback:**

* The overarching objective should be to have all parties (regulators, industry, Academy, Conning) engaged in a well-defined and transparent governance process.
* In addition to defining roles and responsibilities, there should also be well defined processes to govern the ongoing operation and maintenance of the generator (for example issue resolution) along with a defined process to work around or prevent potential challenges such as discussion in a public forum due to propriety aspects of the model.
* A major part of these efforts should be the collecting of key documentation from Conning and NAIC and maintaining this documentation up to date to support corresponding production scenario releases. Examples of key documentation could include the model, calibration, and initial curve fitting methodology from Conning, and official exposure documents from NAIC (e.g., scenario stratification, interest rate flooring, SERT scenario method, replace hard interest/equity linkage to correlation-based approach on equity, and acceptance criteria, etc.).

**R & R – NAIC GOES (E/A) Subgroup:**

* Consider adding guidance around what constitutes material or key items that should be evaluated and monitored.
* Consider adding the following responsibilities:
	+ Monitoring that GOES is fit for purpose.
	+ Flagging issues that emerge during scenario production.
	+ Defining the documentation Conning is responsible for providing in support of GOES.
* Bullet 5 on page 4 should be modified as “… acceptance criteria (and evaluation statistics) that reflect …”.
* Vendor (Conning) responsibility should also include plausible off-cycle recalibration that could be deemed necessary by the Subgroup, LATF and/or Life RBC WG.
	+ This will be especially important for initial years of usage of the vendor solution in order to address unknown plausible deficiency that may surface under untested initial market conditions that can lead to potential unwarranted disruptive impact on industry-wide reserve/capital valuation.
	+ This links to the critical need to establish a formal escalation framework. This will enable regulators and/or industry to expedite the evaluation and solutioning to concerns caused by, if any, plausible major deficiency.
* Bullet 3 on page 7 should explicitly define “timely manner and provide evidence” in order to make it trackable and actionable for effective and timely enforcement.
* Periodic GOES recalibration:
	+ Define the process for reviewing, recommending, and approving changes to GOES calibration stemming from period recalibration based on feedback from the subgroup, Conning, and other interested parties. The consideration should include impact analyses for reserves and capital.
	+ What event should trigger an off-cycle recalibration? For example, if it is determined that a scenario set does not satisfy the acceptance criteria (primarily the targeting criteria but should also consider evaluation statistics and will need to consider buffers / definition(s) around material deviations), what is the next step?
		- In addition to the 10k scenario set, evaluation/validation will need to be done for any subset(s) posted by Conning.
* Acceptance Criteria
	+ How often are they updated?
	+ Do some criteria need to be updated more often than others? E.g., interest rate MRP used to be updated every year?
	+ When a big update is made, are there going to be “parallel” productions to validate?
	+ How far in advance before year end is this update made? Follow cycle of VM?
	+ How will the interest rate MRP be updated? There is range in an evaluation statistic but no specific targeting criteria. Will the range be revisited every [5] years and Conning has flexibility for it to change from valuation date to valuation date as long as it is within that range?

**R & R - Conning:**

* What will the published tool include? Will it allow for parameters to be changed so a company can do ad hoc analysis around the scenarios or even things like economic sensitivities (e.g., Up/down 100 basis point interest rate shocks) which may be required as part of the company’s reporting, risk management, and hedge programs. The AAA scenario generator currently allows for companies to do these required runs.
* Production related governance:
	+ Should scenarios encounter issues, will Conning ensure the validation completes by 4PM Central Time on calendar Day 1? If additional time is required, what would be the subsequent deadline? Would any communication regarding any delays be conveyed via NAIC website where the scenarios would be housed?
	+ Are there economic quantitative condition(s) (e.g., interest rates drop below -5% where things fully floor out and calibration process cannot replicate those conditions) where we would expect in advance that the routine update process will fail?
	+ Process for Escalation:
		- What happens when scenarios break? What is the cut-off date for Conning to address production issues without creating downstream reporting problems for companies?
		- In the event of unresolved issues, what alternative scenarios will be used? Will communication regarding this decision be provided and if so, how?
* The Monthly Conning Scenarios do not reference Stochastic Exclusion Test (SET) and Deterministic Scenarios for VM-20. Will these scenarios or a tool to create them be part of Conning’s monthly process?
* Monthly Production and Validation
	+ What is included in the validation report? The report should include the tabular statistics, chart, and rationale on any failed criteria in the user-friendly format.
	+ There needs to be some criteria to determine if scenarios “pass” or “fail.” How would this process work for individual criteria versus a holistic assessment of the scenarios?
	+ Who “signs off” on scenarios before production release? Does this require industry input?
	+ Consider requesting Conning provide validation reports and statistics to GOES (E/A) Subgroup ahead of publishing to the public for a quick review. If there is concern about this delaying the release of scenario files, then consider either having the GOES (E/A) Subgroup or NAIC staff review the validation reports within a reasonable time frame following the scenario files being posted.
	+ Consider adding a communication process for any delays in publishing data.
* Periodic GOES recalibration:
	+ Recommend to the Subgroup any instances in which they determine the model needs recalibration and the rationale for the recalibration.

**R & R – NAIC Staff**:

* NAIC staff should assist in maintaining and ensuring appropriate documentation is accessible.

**R & R - Subject Matter Experts:**

* We agree with having some SMEs outside of Conning and/or NAIC staff review the validation reports in addition to Conning’s attestation.
* Consider rewording monthly scenario production responsibility to include scenario validation review along with delivery issues.