# ESG Technical Drafting Group

Planned Topics, Tentative Timing, and initial Decision Points

## Stochastic Exclusion Ratio Test

## **Timeline:** Initially,2 more meetings tentatively in March-April, to finish covering field test results and discuss decision points below. Subsequently, two additional meetings after the second round of field testing, to discuss SERT field test results, pick a version of the SERT (if multiple were tested), and to determine SERT cutoff (assuming this form of SERT is selected).

**SERT Goals:**

* Practically sort products that may have a constraining SR from those that would not have a constraining SR.
* Give reasonably consistent results over time and in different economic environments.

**SERT Decision Points:**

1. **Decision Point:** Should the SERT be removed entirely, given that it is duplicative of what could be provided for the certification method? This could include moving the primary SERT outline to the examples for a broadened certification method. With a QA certifying as to the risks, a more judgment-based evaluation of the variability could be performed rather than having a rough cutoff that does not consider the size of the business or the materiality standard.

**Advantage for removal:** The SERT discourages a holistic assessment and discussion of risk that is more appropriate for PBR. It could potentially be replaced with versions of the certification or demonstration method. One suggested alternative was to run a small, representative scenario set (e.g., 50 scenarios) and show it is not constraining compared to the NPR and DR. This is currently allowable under the stochastic exclusion demonstration test option outlined in 6.A.3.b.iii, except that it is left up to the company to determine “a sufficient number of adverse scenarios”.

**Advantage for retaining:** The SERT is often used because it is simple to implement. Following the same approach but as part of a certification method would require additional reporting and may trigger follow-up questions.

1. **Decision Point:** What products are generally expected to pass the SERT, what products are generally expected to fail, and what percentage of the time should this single test be able to accurately sort these accordingly?

**Proposal**: Pass: most Term with 20 year or shorter level period (non-ROP); Fail: most ULSG (unless minimal guarantees); the current SERT appears to fail roughly 10% of the time.

1. **Decision Point:** Do the SERT scenarios need to be at a moderately adverse level?

**Proposal:** No. The SERT is not a set of scenarios that need to be “passed”. They should reasonably assess whether performing an SR and taking a CTE(70) is likely to produce a higher reserve than the DR. Thus, they should assess whether tail scenarios lead to significant increases. They should generally be representative of the tail, but tail results may not be driven by the 85th percentile. Ultimately, the cutoff, which will be calibrated based on the SERT methodology, is what will determine whether products pass or fail the SERT.

1. **Decision Point:** Should the SERT scenarios be derived directly from the stochastic scenario distribution, as Conning has done or modified, or should they be “stylized” scenarios be created that reflect starting conditions and a level of reversion to a mean? Is there an alternative approach?

**Advantages for scenarios based on full scenario set:** Direct relationship for goal #1; avoids disconnect between the test and its effectiveness for the intended purpose of determining whether there would likely be a SR excess over the DR. The intent is for ESG updates to be more gradual over time now that we have a vendor to maintain the ESG. Each update would require an evaluation and potential update of the stylized scenarios as well.

**Advantages for scenarios based on stylized set:** Ease of implementation. Being less responsive means being more predictable.

1. **Decision Point:** How do we evaluate the SERT is appropriately calibrated, independent of the additional risk reflected in the new scenarios? That is, what must be included in a subsequent Field Test to calibrate an appropriate cutoff?

**Proposal:** Adequate coverage of different starting conditions, adequate representation of products (Term, ULSG, VULSG, VULnoSG par & non-par WL).

## Deterministic Reserve

## **Timeline:** Initially,2 meetings tentatively in April. Subsequent to the second round of field testing, two meetings to review DR field test results and to select a version of the DR (if multiple were tested) and confirm DR methodology.

**DR Goal:**

* Provide a moderately adverse deterministic scenario that will be adequate to capture risk for products that do not have significant interest rate and or equity risk.

**DR Decision Points:**

1. **Decision Point:** Should this scenario be linked to the stochastic exclusion ratio test or can it be separate?

**Proposal:** Separate. The DR must primarily be suitable for the DR goal above.

1. **Decision Point:** Do we agree with the format of the current deterministic scenario (adverse for 20 years, followed by reversion to mean)?

**Proposal**: Generally yes, but should consider whether the reversion to mean after 20 years particularly impacts specific products, giving less than a moderately adverse result. The focus for DR reserve adequacy should be policies passing the SET, but we should be mindful that it can be constraining for those with an SR as well.

1. **Decision Point:** Is the deterministic reserve scenario methodology used for the first field test appropriate?

**Proposal**: The DR scenario used may be beyond moderately adverse. While re-calibration will impact the DR level, ask Conning to develop a form of DR that is more consistent with the current DR.

## Scenario Picker Tool

## **Timeline:** 3 meetings, tentatively in May

**Scenario Picker Tool Goal:**

* Provide scenario subsets that are reasonably representative of the full 10,000 scenario set for policies and/or contracts that are sensitive primarily to interest rates, equities, or both.

**Scenario Picker Tool Decision Points:**

1. **Decision Point:** Should there be a scenario picker that is included as part of the ESG?

**Proposal:** Yes.

1. **Decision Point:** Should custom stratifications be allowed, for both VM-20 and VM-21, if the company provides an off-cycle or model office comparison between the subset and full 10,000 to show there is not material understatement or bias?

**Proposal:** Yes. This may reduce the importance of having a perfect response for items #3-#5 below.

1. **Decision Point:** What size of subsets are needed?

**Proposal:** 50, 200, 1000, 2000.

1. **Decision Point:** Should there be stratification based on interest rates and/or equity?

**Proposal:** There should be two or three versions of the scenario picker tool, which stratify scenarios based on interest rate, equity, and/or both.

1. **Decision Point:** For interest rates, what tenor(s) should be used for stratification?

**Proposal:** This may be a limitation in the current scenario picker tool. Consider multiple metrics based on different tenors.

1. **Decision Point:** What metric should be used for stratification?

**Proposal:** Evaluate whether the current scenario picker’s metric is reasonable, aside from its narrow focus on a specific interest rate tenor.

## Company-Specific Market Paths (CSMP)

## **Timeline:** 1 meeting, tentatively in May

**CSMP Goal:**

* Provide a reasonable alternative to the CTEPA that gives consistent results but is more tractable.

**CSMP Decision Points:**

1. **Decision Point:** Should the CSMP be removed entirely?

**Proposal:** Not at this time, but we should consider whether a sunset timeline is appropriate depending on current use. The CTEPA is very widely used, provides greater insight into the differences between company and prescribed assumptions, and is more straightforward to implement (although more time-intensive). Note that the NAIC and regulators are looking into obtaining a more exhaustive list of its use, and will recommend to companies using the CSMP that they participate in ACLI and AAA groups related to this effort as well as the Technical DG.

1. **Decision Point:** Should there be any update to the CSMP Market paths?

**Proposal:** Primarily, updates would be designed to ensure that the 40 scenarios are likely to bracket CTE70(Adj). May need to replace the 1 bps floor on interest rates with a negative [25 bps] floor on interest rates, given the update to the economic scenarios to allow for negative interest rates. No other changes to magnitude of initial equity/interest rate shocks or subsequent equity returns. Interest rate paths (VM requires “all random variables in the generator are set to zero across all time periods” with the intention that “interest rates revert to the same long-term mean”) may be determined as Conning has done for SERT scenario #9 from the initial field test (median path), or we can consider whether Conning can more directly calculate the CSMP subsequent interest rate paths.

## Alternative Methodology

## **Timeline:** 1 meeting, tentatively in June

**Alternative Methodology Goal:**

* Provide a reasonable alternative to stochastic modeling that captures the risk of the guarantee for contracts with GMDBs only. Note that for contracts with no guarantees, the Alternative Methodology simply refers to AG33, so the focus of our consideration is on contracts with GMDBs.

**Alternative Methodology Decision Points:**

1. **Decision Point:** Should the Alternative Methodology be removed entirely?

**Proposal:** Not at this time, but we should consider whether a sunset timeline is appropriate depending on current use. Note that the NAIC and regulators are looking into obtaining a more exhaustive list of its use, and will recommend to companies using the Alternative Methodology that they participate in ACLI and AAA groups related to this effort as well as the Technical DG. One suggested alternative for maintaining the Alternative Methodology was to revert to AG34 with an increased stress for richer GMDBs. In addition, there was a question of whether LATF would look for companies with a material block of “rich” GMDBs to follow full SR modeling. Consider not allowing **new** use of the Alternative Methodology.

1. **Decision Point:** Should there be a significant update to the Alternative Methodology (updating the table of factors)?

**Proposal:** No. Based on early input from the AAA, an update of the current factor-based approach would be onerous if not impossible. If the equity scenarios materially differ from the AIRG, can consider a crude adjustment as was previously done for mortality during VA reform if the impact for the Alternative Methodology is also likely material.

1. **Decision Point:** The Alternative Methodology uses the current AIRG in VM-21 Section 7.C.8 when describing “typical” adjustments to F and G for product design variations. Can Section 7.C.8 be removed, as it only outlines a possible approach, and it will be left to the actuary’s judgment how to adjust results for product design variations? Alternately, can the “prescribed scenarios” be replaced with the option to use either CFT scenarios or the updated prescribed (Conning) scenarios rather than the current AIRG (again, since this is an example)?

**Proposal:** Need input on whether this approach is being relied on. If this is not being used, remove for simplicity since it is not a requirement. If it is being used, update with the option to use CFT scenarios or the updated prescribed (Conning) scenarios.