

# ESG Implementation Project: Background and Deliverables

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# Agenda

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# Background

2017

The Academy notified the Life Actuarial (A) Task Force (LATF) that it did not have the resources to maintain the ESGs, except in their current form until a suitable replacement could be found.

7/16/19

- LATF and the Life RBC Working Group (LRBC WG) requested that NAIC staff consider issuing a Request for Proposal (RFP).
- A group of regulators, NAIC staff, and subject-matter experts was formed to develop an RFP.

3/4/20

The NAIC issued an RFP to solicit proposals from ESG vendors to provide, maintain, and support an ESG producing real-world interest and equity scenarios to be prescribed for use in calculations of life and annuity Statutory reserves and capital.

5/1/20

Six proposals were reviewed by NAIC staff and regulators involved in drafting the RFP. Selection criteria included:  
1) Qualifications of staff, 2) Professional reputation, 3) Ability to deliver requested items, 4) Capability to perform updates to ESG features, parameters, and tools in a timely manner, 5) Flexibility to work through the NAIC process to customize ESG features, parameters, and tools, 6) Robustness of documentation, 7) Quality of training materials and other support, 8) Price

9/30/20

- NAIC Executive Committee approved the selection of Conning as the ESG vendor, along with funding
- NAIC executed a contract with Conning

1/1/22

Target Implementation date

# Conning's Scope of Work: Initial Deliverables

# Existing ESG, prior to regulator modifications

- A. An existing ESG capable of producing real-world interest rate, equity, and bond fund return scenarios to be prescribed for use in calculations of life and annuity Statutory reserves according to the *Valuation Manual* (e.g., VM-20, VM-21) and capital under the NAIC RBC requirements (e.g., C3 Phase 1, C3 Phase 2).
- Conning's GEMS<sup>®</sup> ESG was selected as the existing ESG. Potential modifications are to be determined.
  - Risk-neutral scenarios are out of scope for this project; however, they are available (contact Conning for pricing).

# Open meetings to discuss potential modifications

- B. Meetings/initial training with NAIC staff, state regulators, and End Users as needed to discuss the ESG, related tools (see items D-H), and potential modifications.
- “End User” means the NAIC, state regulators, insurance companies, third-party consultants retained by state regulators, insurance companies, and any other person who makes use of the services.
  - Joint open meetings of LATF and LRBC WG will be scheduled for educational purposes and discussions on potential modifications.
  - Comparisons to the current prescribed ESG and tools will be necessary as part of this process.

*Note: Interested parties will have the opportunity to express their views regarding the ESG, parameters, tools, etc. during open LATF and/or LRBC WG meetings as regulators discuss these items and consider potential modifications. Please do not contact Conning directly for this purpose.*

# Basic Data Set, to be prescribed for statutory reporting

- C. Customization of ESG to reflect any modifications adopted by state regulators. The final ESG scenarios will be referred to as the **Basic Data Set**. These scenarios will be prescribed for statutory reporting.
- The RFP did not dictate specifications on model type, calibration, or parameters. Conning's existing ESG will be customized as desired by regulators. The extent to which the output differs from the Academy ESG is to be determined.
  - For the Basic Data Set, the following data are available:
    - Treasury Yields – 1M, 3M, 6M, 1Y – 30Y by year; Spot and Coupon Yields.
    - Bond Returns – Money Market; Short, Intermediate and Long Governments; Short, Intermediate and Long Investment Grade Corporates; High Yield Corporates.
    - Equity Returns – S&P 500, Russell Midcap, Russell 2000, NASDAQ, MSCI EAFE and MSCI Emerging Market.
    - All Returns will be split between Total, Income and Price.
  - A link to the Basic Data Set will be provided on the NAIC website. This may be accessed by any End User.
  - The NAIC does not currently envision charging for the Basic Data Set. However, the NAIC reserves the right to do so in the future.

# Optional Robust Data Set

- The RFP requested information on any additional functionality available beyond the minimum RFP requirements.
- Conning has a Robust Data Set that expands on the Basic Data Set to include the following additional data fields:
  - Corporate Yields by Rating: AAA, AA, A, BBB and High Yield; same items as Treasury Yields.
  - Transition probabilities between each of these ratings and Default.
  - Default recovery percentages by Rating.
  - Fixed Income Returns – MBS, ABS, CMBS, CLOs, Commercial Paper.
  - Alternative Investments – Hedge Funds, Private Equities, Real Estate.
  - All Returns will be split between Total, Income and Price.
- The Robust Data Set will produce the same interest rate, equity, and bond fund return scenarios as the Basic Data Set (the scenarios in the Basic Data Set are a subset of those in the Robust Data Set).
- **The Robust Data Set is optional.** Please contact Conning for pricing. This is included free of charge for regulators.



# **Conning's Scope of Work: Ongoing Production, Maintenance and Support**

# Tools and Calibration Criteria

- D. A scenario reduction tool to allow companies to choose a specific number of representative scenarios (e.g. 100, 500, 1000, etc.) from a universe of 10,000 scenarios.
  - Scenario subsets provided by the tool as of a valuation date must contain the same scenarios for all users of the tool.
- E. Calibration criteria used to determine whether stratified scenario subsets are sufficiently dispersed relative to the universe of 10,000 scenarios.
- F. A tool to generate scenarios for the VM-20 Stochastic Exclusion Ratio Test.
- G. A tool to generate the VM-21 Company-Specific Market Path method scenarios.
- H. A tool to generate statistics, to be determined, on the output of the NAIC Economic Scenario Files. Validation reports will be provided which summarize the key characteristics of the Basic Data Set (and the Robust Data Set, if purchased).

# Documentation and Training

- I. Conning will provide full documentation on specifications, calibration, and tools. This will include:
  1. Full documentation of the necessary components used to develop the Basic Data Set.
  2. Documentation for all related tools described in items D-H.
- J. Conning will provide robust training materials for End Users.

## Note:

- A link to the documentation and training materials will be provided on the NAIC website. This may be accessed by any End User.
- End Users who choose to purchase the Robust Data Set will have access to Conning's Software Documentation Library.

# Ongoing Production and Maintenance

- K. Conning will run the Basic Data Set (and Robust Data Set, if purchased) as of each month-end and produce the required scenarios and related tools described in items D-H.
- This process must be completed in time to post scenarios and related tools by 4:00 PM Central Time on the first business day of the following month.
  - Validation reports for the Basic Data Set (and the Robust Data Set, if purchased), and additional statistics are expected to be delivered simultaneously with the scenario files.
  - A link to the scenario files, validation reports, statistics, related tools in items D-H, documentation, and training materials will be provided on the NAIC website. Access will be provided for End Users regardless of whether they have licensed Conning's software.

# Ongoing Production and Maintenance

- L. Conning will develop parameter updates at a frequency determined by the state regulators. The process will include the following steps:
  1. Perform research on potential changes as requested by state regulators.
  2. Document and present potential changes to state regulators for exposure and adoption. Attend regulator meetings as needed to respond to questions/comments received during the exposure period. Materials to be provided for consideration of changes should include: a) discussion on how changes were vetted for complex interactions between parameters, b) attribution analysis showing the impact of each change, and c) documentation on the above in sufficient detail to allow independent review.
  3. Reflect final adopted updates in a timely manner and provide evidence to the NAIC that they were made appropriately.
  4. Update documentation impacted by any changes.
  
- M. Conning will update training materials for End Users.

# Ongoing Support

- N. Conning will provide full support to End Users who have licensed the Software.
- O. Conning will provide help desk support to End Users who have not licensed the software. This will include phone support as well as an e-mail address to allow End Users to submit questions.
- P. Conning will provide necessary support for field testing under regulatory reserving and capital frameworks.
- Q. Conning will provide the following information annually:
  1. Back-testing report comparing the projected results to what actually happened over the previous year.
  2. Summary information of the number and types of questions submitted to Conning via the support e-mail address; and steps taken to address these concerns (e.g., additional documentation created).

# Summary of Optional Offerings

## (contact Conning for pricing)

- The RFP requested information on any additional items offered by the vendor beyond the RFP minimum requirements. The NAIC's contract with Conning includes pricing for the following optional items, and states that the prices quoted will be held for 5 years.
  - Robust Dataset\* (see slide 8 for details) - Prices are lower if produced quarterly instead of monthly.
  - ESG software licensing
  - Application Programming Interface (API) tool
    - Conning can assist users in the implementation of the API (at a one-time cost)
    - With the API, companies will be able to generate their selected data directly. As part of this option, Conning will deliver the necessary calibration parameters this code needs to generate the monthly files being delivered to the NAIC. When used with these parameters, this code will produce the exact same results, on a scenario by scenario basis, as the ones delivered to the NAIC. However, it will also allow clients to produce data sets that meet their own needs: more scenarios, more periods, altered starting conditions, etc.
- Risk neutral scenarios are also available
- The NAIC has not entered into a revenue-sharing agreement with Conning

\*Included free of charge for regulators

# Next Steps

- Please send any questions on this presentation to [RMazyck@naic.org](mailto:RMazyck@naic.org)
- A Joint LATF / LRBC WG open meeting will be scheduled for Conning to provide an overview of the ESG