



Article from

**The Financial Reporter**

December 2015

Issue 103

# Society of Actuaries New Learning Tool DECs

By Kerry Krantz

Four subject matter experts, actuaries Alberto Abalo, Mike Harrington, Dave Neve, and Andy Rarus, have developed what we hope will be a new Society of Actuaries (SOA) education tool using the Khan Academy educational website durable educational component (DEC) approach.

A DEC is online training with a whiteboard video lecture between 10-15 minutes in length (think of these as 10 to 15 minute audio-video class lectures). As part of principle-based reserve (PBR) implementation, the NAIC has developed a charge related to pre-implementation and training. Included is company outreach. Four state regulators, Andy Rarus, Craig Chupp, Pete Weber, and I, have worked on this charge. Andy recruited the subject matter experts to develop an initial DEC on the subject of PBR net premium reserve. Kristine Buelow, Instructional Specialist at the Society, and Sherri Blyth, Senior Instructional Designer, worked with the four actuaries to develop this DEC.

The concept of a principle-based net premium reserve was initially proposed by the American Council of Life Insurance Companies (ACL) actuaries to create a “floor” that could be the basis for a tax reserve. During the Impact Study designed and conducted by Towers-Watson, a sample spreadsheet was shared with the company actuaries participating in the study. This DEC will provide a demonstration of how the text of the Valuation Manual Section (VM-20) defining a net premium reserve can be applied to a specific product. Included (and stored on an SOA web page) will be a program narrative and Excel spreadsheet.

The component begins with a welcome message. After Andy identifies the events that led to the development of the DEC, the next slide (see Exhibit 1) lists the objectives. “This micro-course is designed for regulators and actuaries working on VM-20 reserve implementation within their companies. It discusses the importance of the principle-based approach, assumptions, and the net premium reserve (NPR) calculation.” Upon completion of this course, the viewer will be able to discuss the applicability of VM-20 NPR requirements to a company’s term insurance business and calculate the NPR for a representative term policy.

## EXHIBIT 1

The screenshot shows a web browser window with the URL [learning.soa.org/ikview/CustomCodeBehind/base/courseware/scorm/scorm12/courseframe.aspx](http://learning.soa.org/ikview/CustomCodeBehind/base/courseware/scorm/scorm12/courseframe.aspx). The slide content is as follows:

### Objectives

This micro-course overview is designed for regulators and actuaries working on the VM-20 reserve implementation within their companies. It discusses the importance of the principle-based approach, assumptions and the net premium reserve (NPR) calculation.

Upon completion of this course, you will be able to:

- Discuss the applicability of VM-20 NPR requirements to a company’s term insurance business / rationale for a reserve floor.
- Calculate the NPR for a representative term policy.

The next slide explains the importance of PBR to consumers, improving the process of risk assessment, and the valuation system. After that is a slide discussing areas of valuation assumptions: prescribed, stochastically modeled, and prudent estimate. The next slide discusses the FIT concern that led to an NPR reserve. The DEC takes a four step approach. (There are three parts (a, b, and c) to step 3.) These steps are based on a framework presented by Karen Rudolph featured in issue 95 of *The Financial Reporter*.

After this introduction, a slide displaying a monitor has a link to the video narrated by Albert. He takes the viewer step by step (1, 2, 3a, 3b, 3c, and 4) through the spreadsheet (see Exhibit 2) adapted from Tim Cardinal’s NPR calculator.

## EXHIBIT 2

The screenshot shows an Excel spreadsheet with the following content:

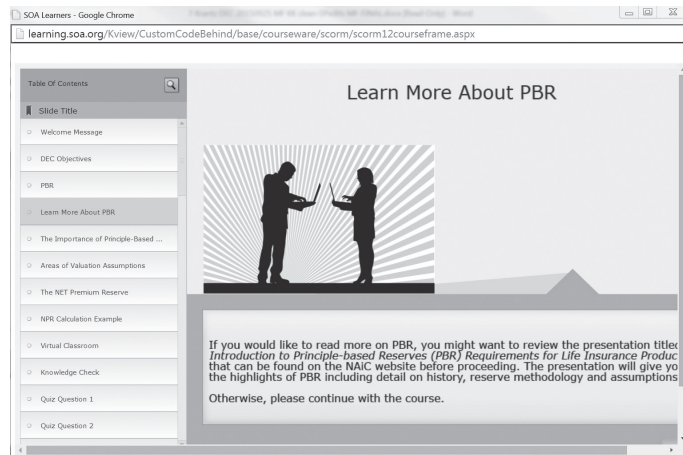
Step	Description
1	Determine valuation assumptions
2	Calculate adjusted gross premiums
3	Calculate valuation net premiums
3a	Check post-level period net premium complies with VM-20 constraint
3b	Revise valuation net premiums
3c	Calculate Terminal NPRs

Notes: (steps based on framework in PBA Corner article by Karen Rudolph, featured in issue 95 of the "Financial Reporter")

The next slide provides the viewer the option to “Check Your PBR Knowledge.” If one is familiar with PBR, one can skip the assessment that follows. If one fails the multiple choice assessment (e.g., only three of five correct), one can click continue to

a slide (see Exhibit 3) that recommends an NAIC presentation titled “Introduction to Principle-based Reserves (PBR) Requirements for Life Insurance Products” that can be found on the NAIC website.

### EXHIBIT 3



A list of resources is provided on the next slide. It includes a link to Karen Rudolph’s PBA Corner article. The next slide has the names of the regulators and subject matter experts. The final slide asks the viewer to stay tuned for upcoming principle-based reserve DEC releases. ■



Kerry Krantz, FSA, MAAA, is an actuary at the Florida Office of Insurance Regulation. He can be reached at [kerry.krantz@flor.com](mailto:kerry.krantz@flor.com).