

FEMP eTraining Core Course
Fundamentals of Life Cycle Costing for Energy Conservation
5.50 Hrs 0.60 CEUs

This training provides the knowledge and skills to improve Federal economic-based decision making, determine the total cost of ownership of project alternatives, and inform decisions for energy and water efficiency investments. In addition, learners will apply key requirements and supplemental economic measures to Federal investment decisions, such as those for individual and interdependent building system acquisitions for new construction and major renovations.

Participants will learn to:

- Discount cash flow to present value and choose correct methods to handle inflation;
- Calculate supplementary economic measures including net savings, savings-to-investment-ratio, adjusted internal rate of return, and payback period;
- Calculate LCC and decide whether to accept or reject alternatives for *independent* and/or *interdependent* projects;
- Allocate a budget among competing projects; and
- Run the Building Life Cycle Computer (BLCC) software to make calculations, screen project alternatives, and generate standard reports.

The course instructor is Dr. Joshua Kneifel, an economist at the National Institutes of Technology (NIST), Engineering Laboratory, Applied Economics Office. At NIST, Dr. Kneifel develops metrics and tools for energy-efficient and sustainable buildings and implementing life-cycle costing (LCC) methods and procedures. He is also responsible for the software tool, Building for Environmental and Economic Sustainability (BEES), which measures the environmental and economic sustainability of building products, as well as a companion tool for whole buildings known as Building Industry Reporting and Design for Sustainability (BIRDS).

After completing a course evaluation and multiple-choice assessment, participants will receive a certificate of completion and be eligible for continuing education units.

FEMP eTraining Core Courses are designed for Federal energy and facility managers, but are open to all individuals at femp.energy.gov/training. Hosted in partnership with the National Institute of Building Sciences Whole Building Design Guide at http://www.wbdg.org/education/femp_ce.php.

Requires Google Chrome, Firefox 4.0+, Internet Explorer 7.0+ or Safari, and the Adobe Flash 9+ plugin.

For more information, visit the [FEMP Training](#) website.

For other free, self-paced eTraining Core Courses offered by FEMP in association with the Whole Building Design Guide, visit <http://apps1.eere.energy.gov/femp/training/etraining.cfm>

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