Software Helps Professionals Design Highly Energy-Efficient Buildings

Lawrence Berkeley National Lab

In the 1990s the federal government was eager to replace its outdated software for calculating heating and cooling loads in the buildings it constructed. The U.S. Army Construction Engineering Research Laboratory, the Department of Energy's Office of Building Technologies, University of Illinois at Urbana-Champaign and Lawrence Berkeley National Laboratory teamed up to design EnergyPlus, a stand-alone simulation program.

Launched in 2001, EnergyPlus allows users to calculate the impacts of different heating, cooling, and ventilating configurations and various types of lighting and windows to maximize energy efficiency and occupant comfort.

> *The software can save companies millions of dollars in operational costs over the life of a building, compared to more traditional approaches. EnergyPlus is also being used to evaluate designs for future construction at the World Trade Center site.*

Berkeley Lab has developed several different types of licenses to encourage the improvement and widespread adoption of EnergyPlus in the private sector. In addition to 24,000 end-user licensees, nearly 100 universities, research organizations and private-sector companies are acting as collaborative developers, contributing their software improvements to EnergyPlus. EnergyPlus may be freely downloaded from www.energyplus.gov. The U.S. Department of Energy's Drury Crawley manages the development project.

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