June 21, 2007

FOR IMMEDIATE RELEASE

Contact: Stacey Hobart
New Buildings Institute
stacey@newbuildings.org
503-407-2148

Building and efficiency experts meet on how to improve energy performance of commercial buildings

Seven key actions could significantly improve the energy performance of new commercial buildings, according to a document released by New Buildings Institute (NBI). The actions were identified at a gathering of over 60 building professionals and energy efficiency experts who met at a *Getting to Fifty* Summit in Atlanta earlier this year to discuss how to accelerate energy-efficient design and construction practices.

"The barriers to the widespread design and construction of low-energy buildings are not technical in nature, nor are they necessarily financial," NBI Executive Director Dave Hewitt said of the Summit findings. "More likely, they are related to the motivation of owners and the skill set of design and construction teams."

NBI, a nonprofit working to improve the efficiency of new commercial buildings, hosted the *Getting to Fifty* Summit and facilitated the program with funding from the Energy Foundation and the ENERGY STAR program of the U.S. Environmental Protection Agency. The meeting was named for an Energy Policy Act (EPACT05) provision that provides tax incentives for buildings which are designed to use 50 percent less energy than ASHRAE 90.1-2001, a frequently referenced building energy code of the American Society of Heating, Refrigeration and Air-Conditioning Engineers. According to NBI research, only one in 1,000 U.S. buildings currently meets the benchmark.

Generally, outcomes of the meeting determined the need for public policies favoring energy efficiency, performance measurement of energy-efficient buildings, increased availability of integrated technology packages in the marketplace and emphasis on early design practices as well as climate-responsive design practices.

"There's limited practical guidance for design teams who may be ready to consider improvements to performance which would make their buildings 50 percent more efficient than code," Hewitt explained. "The uncertainties and time requirements of researching and implementing new approaches, and the associated performance risks, continue to be real-world obstacles to improved energy performance."

Specifically, key concepts developed and supported by attendees include:

-more-

It is critical to build the business case for high performance buildings. Owners, as the decision makers regarding building priorities and required financial performance, need stronger, more specific information about the benefits of high performance buildings.

Tax incentives and progressive codes and standards are the public policy tools that will have the greatest impact in supporting the development of low-energy buildings. Extension and expansion of the EPACT 2005 tax deductions are needed. Codes and standards must move more aggressively to reduce the carbon impacts of buildings.

Early design process improvements can improve information, choices and commitments related to building performance. Several early actions that would improve design choices were developed at the Summit. Prescriptive whole building guidance for smaller buildings is provided by ASHRAE's *Advanced Energy Design Guidelines* and NBI's *Advanced Buildings Core Performance* program.

Plug-and-play integrated technology packages could capture the next step in efficiency for lighting, heating, ventilation and cooling. Examples of work underway are the Commercial Lighting Initiative of the U.S. Department of Energy and the California Energy Commission's PIER Advanced Rooftop Unit study.

Climate-responsive design is the element most likely to lead to buildings with very low energy requirements. Daylighting, natural ventilation and evaporative cooling represent complex interactions of technology, building form, controls and occupants. These interactions require research and educational strategies to maximize the effectiveness of the design.

Feedback on building performance needs to be improved from several perspectives. To improve the next design, better understanding of previous design choices is needed. Owners and operators also need feedback on current performance to improve building operations.

Building case studies and post-occupancy evaluations are needed to reduce the real and perceived risks of low-energy buildings. A tiered strategy of case studies was conceived at the Summit, elements of which include energy, financial and occupant comfort information. More support is needed for case study development and post-occupancy evaluations.

NBI is planning follow-up activities to the Summit, including a national meeting focused on building performance and a series of activities to develop building energy performance standards. The full report on Summit outcomes and recommendations developed by NBI, as well as a database of buildings that meet the *Getting to Fifty* standard, is available at www.gettingtofifty.org.

###