



High Performance Buildings to Be Mandated by National Standard Body

ASHRAE Poised to Increase Minimum Required Roof and Wall Insulation Levels

Bethesda, MD, February 22, 2010 -- The foremost energy performance standard setting group in the country, the ASHRAE Standard 90.1 committee, recently approved a proposal to increase the minimum required prescriptive R-values for roof and wall insulation levels in the 2010 version of the standard. This exemplifies the increasing demand from the government and the marketplace for improved building performance.

Under the 2010 version of ASHRAE Standard 90.1, above deck insulation levels for non-residential buildings by climate zone are as follows:

CLIMATE ZONE	2010 Proposed Prescriptive Roof Insulation R-Values	Percentage Increase Over Standard 90.1 2007
Zone 1	R-20	33% increase from R-15
Zones 2 and 3	R-25	20% increase from R-20
Zones 4, 5 and 6	R-30	50% increase from R-20
Zones 7 and 8	R-35	75% increase from R-20

The ASHRAE Board is expected to give final approval to the proposal later this year.

“The average commercial building is 25,000 s.f. and the vast majority of those are low rise, where the roof area is dominant. Clearly these increases in roof thermal performance can have an exponential impact at a time when energy security, economics and efficiency are all critical issues facing this nation,” said Jared Blum, President of PIMA. “It is impressive that an organization such as ASHRAE – which has a huge impact on new construction – is taking monumental efforts to improve building performance. This shows that efforts to raise R-values are being taken seriously.”

The ASHRAE (The American Society of Heating, Refrigerating and Air-Conditioning Engineers) is an international technical society which publishes a well recognized series of standards and guidelines that are referenced in building codes. One such standard is ASHRAE Standard 90.1 which represents the **minimum** required prescriptive R-value (resistance to heat flow) for roof and wall insulation levels. More specifically, this ASHRAE Standard addresses building envelope and system requirements for commercial buildings, residential buildings higher than three stories, and semi-conditioned buildings (warehouses, etc.). It is the nation’s model standard for establishing the energy performance requirements of these building types.

In 2007, the R-value requirements for this standard were increased by 33% for climate zones 2 thru 8. The above-deck roof insulation requirements for those climate zones increased from **R-15 to R-20**. This was an historic change as it marked the first time in 18 years that ASHRAE had made a change to this code and it represents ASHRAE’s first step to support making buildings significantly more efficient.

“In light of the economic and environmental payback that ASHRAE has recognized with this improved standard, it is clear that not only new buildings but also the retrofit market, which is 50 billion s.f. of roofs, can be part of the country’s solution,” added Blum. “If the insulation levels in these commercial roofs are upgraded from their current R-value to the proposed ASHRAE 90.1-2010 performance levels, annual energy savings could exceed \$2 billion.”