The 2030 Challenge Targets Embedded in the HERS Index

Architecture 2030 and RESNET Agreement

SANTA FE, NM – Architecture 2030 and the Residential Energy Services Network (RESNET) finalized an agreement of understanding this week, bringing the Building Sector one step closer to taming the ever-increasing fossil-fuel energy use of buildings.

Buildings are responsible for almost half (48%) of all energy consumption and greenhouse gas (GHG) emissions in the US annually. To bring the energy use of this sector under control, Architecture 2030, a non-profit research organization focused on the Building Sector and global warming, issued the 2030 Challenge. The 2030 Challenge calls for all new buildings and major renovations to reduce their fossil-fuel GHG-emitting energy consumption by 50% by 2010, and incrementally increasing the reductions every five years so that all new buildings are ‘carbon neutral’ by 2030.

The 2030 Challenge has been widely adopted by the building industry, including the US Conference of Mayors, American Institute of Architects and US Green Building Council and, with the signing of the Energy Bill (the Energy Independence and Security Act of 2007) in December, is now required for all new and renovated federal buildings.

In 2007, the baseline for the Challenge targets was defined for commercial buildings as the national average energy consumption of existing US commercial buildings as reported by the 2003 Commercial Building Energy Consumption Survey (CBECS). This has provided the commercial Building Sector a common baseline for achieving the Challenge targets.

Now, the residential Building Sector will also have a common baseline for achieving the Challenge targets. RESNET’s Home Energy Rating System (HERS) is recognized by the US residential Building Sector as a well-established and widely-used metric for evaluating the energy efficiency of homes. RESNET’s standards are officially recognized by the US mortgage industry for capitalizing a building's energy performance into the mortgage loan and for certification of "White Tags" for private financial investors. It is also used by the federal government for verification of building energy performance for such programs as federal tax incentives, the Environmental Protection Agency's ENERGY STAR program and the US Department of Energy's Building America Program.

The initial 50% target of the 2030 Challenge will correspond to a HERS Index score of 65, meaning newly constructed and renovated homes rated at 65 on the HERS Index will use 50% less energy than the regional (or country) average for existing homes. Homes rated less than 65 will use even less energy. “The HERS Index’s is widely used by homebuilding professionals throughout the US and abroad to evaluate residential building energy performance to comply with both private and public programs, making it a perfect tool for those professionals and municipalities that wish to meet the targets of the 2030 Challenge,” said Edward Mazria, founder and Executive Director of Architecture 2030.

About Architecture 2030

By galvanizing and collaborating with the key players in the Building Sector, including the US Conference of Mayors (USCM), Department of Energy (DOE), Environmental Protection Agency (EPA), US Green Building Council (USGBC), Leadership in Energy and Environmental Design (LEED), American Institute of Architects (AIA), American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), International Council for Local Environmental Initiatives (ICLEI), and many others, Architecture 2030 is working to achieve a dramatic reduction in the global-warming-causing greenhouse gas (GHG) emissions of buildings by changing the way they are designed and constructed.

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