

2010 RESNET Priorities

Adopted by the RESNET Board of Directors on October 28, 2009

- **Enhance Quality Assurance Oversight of Rating a Building's Energy Performance** – RESNET's mission is to set the standard of quality for rating a building's energy performance. It must always be a priority for the organization to maintain a high quality of oversight of the standards. In 2010 RESNET will enhance its oversight by streamlining the quality assurance provisions of its standards and include the field monitoring of rating providers.
- **Implement the RESNET National Building Registry** – Previously there has been no national repository of information on homes that have been rated or assessed following the protocols contained in the RESNET standards or qualified for the federal tax credits. To fill this vacuum, RESNET is developing a RESNET National Building Registry. The registry will be an electronic database where accredited providers will upload basic information on homes rated, assessed, or otherwise inspected and tested to meet any program guidelines requiring RESNET quality assurance oversight. The U.S. Department of Energy and the Environmental Protection Agency have agreed to use the national building registry for the National Builders Challenge and the ENERGY STAR for Homes Program.
- **Make the RESNET Standards Development Process Consistent with American National Standard Institute (ANSI) Protocols** – There is increasing interest in ramping up the performance of energy codes and labeling the energy performance of buildings. The RESNET Standards would be the logical foundation for such initiatives. In order to have the credibility to be referenced in codes and regulations, RESNET standards must be in compliance with procedures adopted by ANSI for the development of consensus standards. In 2009 the RESNET Board of Directors established a RESNET Standards Committee with the charter of maintaining oversight of the RESNET standards. The RESNET Standards Committee will lead the effort to revise the RESNET standards to be in compliance with the ANSI protocols.
- **Incorporate COMNET Into RESNET** – With funding from the Energy Foundation, an adhoc coalition of building performance organizations that include the New Buildings Institute, the Institute for Market Transformation and RESNET is developing a national standard for calculating, rating and labeling the energy performance of commercial buildings. RESNET has been asked to formally adopt and maintain the standards once developed. It is logical to expand RESNET's scope to include commercial buildings.

- **Standard Software Assumptions – Streamlining Building Performance Computer Analysis**

There is a great interest in devising a way to calculate the energy performance of homes. While not as robust as a full energy rating, such a method would allow a consumer at a glance to determine the relative energy efficiency of a home. This will be achieved through RESNET adopting standard methods of determining assumed software input values using age and related building characteristics. Examples on how this can be accomplished are:

- Geometric determinations (e.g. determining wall area from conditioned floor area, number of stories and foundation type)
- Envelope thermal quality (e.g. determining envelope effective thermal performance based on climate and age-based defaults)
- Mechanical systems (e.g. determining equipment and distribution performance based on age-based defaults)

- **Adopt Occupied Building Analysis Process –** Currently RESNET Standards treat buildings through standard operating assumptions. This is critical for analyzing building performance on a portfolio basis and for energy labeling used to compare the relative energy performance of one building against another. This process, however, has limited value for guiding homeowners in making decisions on upgrading the energy performance of the home that they occupy.. The U.S. Department of Energy through the National Renewable Energy Laboratory is developing a protocol for software programs to calibrate their energy modeling analysis with utility bills, called BESTEST-EX. RESNET is actively participating in this effort. RESNET has also formed an Occupied Home Software Calibration Task Force and Work Group designed specifically to address the need for standardized methods and procedures for projecting energy use in occupied homes. The Task Force represents a diverse group of individuals with expertise in software modeling tools, building performance analysis, home energy auditing and home energy ratings as well as representatives of the U.S. Department of Energy and the Environmental Protection Agency.

This effort includes both “asset ratings” based on standard operating conditions and “operational ratings” based on calibrated models of occupied homes. Derived from utility billing histories, calibrated engineering models are capable of replicating actual operating conditions and reported energy uses in occupied homes. The Work Group has already identified and come to agreement on a 6-step framework process for development of calibrated engineering models and has begun work on filling in standard methods and procedures appropriate for each step of the process. This process will be completed in 2010.

- **Advocate for Federal Energy, Climate Protection and Tax Incentive Legislation –** Congress is in the process of creating a number of policy initiatives that address improving the energy performance of buildings. These initiatives include ramping up building energy codes, creating rebates for improving the energy efficiency of existing buildings, labeling the energy performance of buildings, adopting federal standards for utility energy efficiency standards and designing creative financing for building energy performance. In 2010 RESNET will play an active role in working with other

energy efficiency and environmental advocacy organizations in providing decision makers with the information needed to craft effective programs that build upon the success of existing efforts.

- **Support Federal Initiatives on Building Energy Performance Labeling, Energy Efficient Mortgages and Creative Financing** – The Obama Administration and Congress are interested in creating a national program for the labeling of energy performance of buildings, revitalizing energy and location efficient mortgage products and creating innovative financing mechanisms such as loan guarantees, on-bill financing and property tax financing. With its decades of experience with energy efficient mortgages and its active dialog with the European Union's Energy Performance of Buildings Directive labeling efforts, RESNET can provide an important resource to the federal government in the design and implementation of these efforts.
- **Engage and Support the Retrofit Market** – Seventy-five percent of buildings that will exist in the year 2050 have already been built. Clearly if the U.S. is to meet its energy and climate change goals, the energy performance of existing homes must be improved. This initiative will be addressed through the adoption of Chapters 7 National Home Energy Audit and 8 Performance Testing to the RESNET Standards, in order to provide a complete and concise method for evaluating the energy efficiency of existing homes, continuing development of software standards for occupied homes and strategic partnerships with the various home performance programs, the Department of Energy's emphasis on existing homes in the Building America Program, RESNET recognized Home Performance Programs, and alliances with contractors.
- **Position Building Energy Performance for the Emerging Global Carbon Market** – The United Nations will be convening the international negotiations for the successor to the Kyoto Climate Accord in Copenhagen in December 2009. It is becoming increasingly apparent that the U.S. will become a party of the new international treaty. In addition it is probable that the U.S. will adopt a mandatory greenhouse gas cap and trade system in the near future. This will create the foundations for a dynamic global carbon market. The United Nations is pushing to include improving building energy performance as a key principle of the Copenhagen treaty. A global carbon market with the right provisions could provide a key boost in measuring, calculating and improving building energy performance. In 2010 RESNET will work to advocate that the new international climate treaty addresses building performance and ensure its standards will comply with the new international protocols. RESNET's membership in the United Nations Environmental Program and active involvement in the ISO process of developing standards for rating building energy performance positions the organization to be effective in this effort.