

# Changes In Home Energy Programs

## Scoring Reversed For Vt. ENERGY STAR Homes; Net Metering Now Includes Hydro

For members building new homes the Co-op provides comprehensive energy-efficiency services through the statewide Vermont ENERGY STAR® Homes Service, in conjunction with Efficiency Vermont. The VESH program provides analysis of a proposed home's energy performance, cost and options to lower energy operating costs and environmental impacts of equipment and investment decisions. Co-op members who participate in this voluntary program and whose homes meet the program standards are eligible for combined incentives up to \$2,250.

Since 1999 the Vermont ENERGY STAR® Homes Service has used a scoring system, similar to one used nationwide, based on a scale beginning at 0 and going up to 100. The ENERGY STAR program is administered by the federal Environmental Protection Agency (EPA), and includes energy performance ratings of most appliances and building components.



To meet Vermont's residential energy code, a new building previously needed a minimum score of 82. This score correlated to "FOUR STARS"; better practice (then) was "FIVE STARS," or "FIVE STARS PLUS." EPA and other stakeholders in the building performance industry, along with public input, have modified the rating system to update the standards, and to allow for additional inspection processes to evaluate a home (new or existing).

One of the most significant changes in the ENERGY STAR® program nationwide is the adoption of the "HERS index" (Home Energy Rating Score). In the HERS index, a more-efficient home will now receive a lower score, and a less efficient home will receive a higher score. This is the opposite of the previous scoring system.

The logic of the scoring system change follows this rationale: The lower the score, the less purchased energy a home is projected to use. Lower score =

lower cost of operation.

For new (or existing) homes to meet the thermal performance of Vermont's Energy Code, a building now needs to score 85 points or less (log homes, and multifamily buildings must score 95 points or less).

Similarly, for homes to meet ENERGY STAR thermal performance standards, a home's score now must be 80 points, or less.

For homes to be potentially eligible for current federal tax credits (up to \$2,000) a home's score would now need to be in the range of 60 points or less (but the exact rating needed depends on several variables).

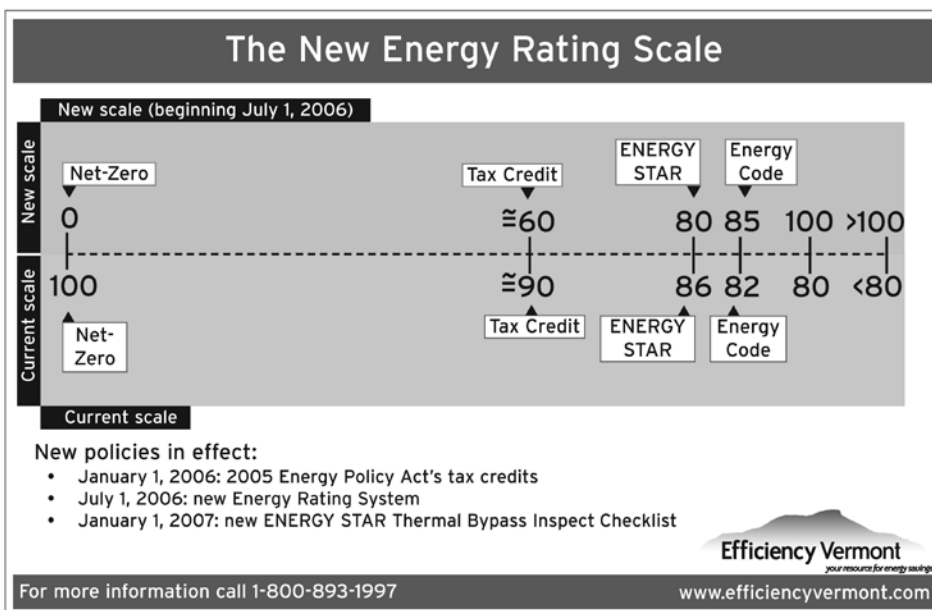
### Zero energy house

The new scoring system has as its "best" case the net "zero energy home" (ZEH). This is an imprecise term whose current definition and use vary with the context and application. In some cases "zero energy" is meant as "no energy purchased from off site." Other ZEH applications are used to define a building which at times is contributing energy back to the grid.

So, ZEH is a vague term, but here implying a low- or no-impact on non-renewable sources of energy.

### Renewable electric generation

Another typical feature of low/zero energy homes is the installation of a renewable energy (generation) system in a net-metering relationship with the grid. In Vermont the resources available since 1999 for members to self-generate have included solar electric (photovoltaics, or PV) and wind. In 2006 the law was amended to allow small hydro into the net-metering statute, although the particulars of what size and how to make these installations are still being worked out by the Vermont Public Service Board.



## **Builder checklist**

Another significant change, beyond the HERS index, is the adoption of a required checklist that builders must follow during construction to assure minimum air leakiness and proper insulation installation.

For Co-op members participating in the Vermont ENERGY STAR® Homes Service the HERS index will allow more accurate feedback about their home's potential energy performance.

For more information go to:

<http://www.encyvermont.com/pages/Residential/BuildingEfficiently/VermontENERGYSTARHomes/enrollment/>, or contact the Co-op: 1.800.932.5245 (802.223.5245), or: <http://www.washingtonco-op.com/>