

NRG ANDROMEDA STAR of ENERGY EFFICIENCY NOMINATION

NRG Insulated Block is a patented and proven insulated concrete masonry unit that uses insulated thermal mass to produce the world's most energy efficient block.

NRG Insulated Block exhibits a serpentine, expanded polystyrene insert that joins interior and exterior block surfaces, and creates a thermal barrier between the interior and exterior of a built wall. This thermal barrier acts to inhibit exterior influences.

The interior wall absorbs and stores large amounts of energy due to its high insulated thermal mass. Consequently, a smaller amount of energy input sustains interior air temperature, saving energy. These savings allow for installation of lighter capacity HVAC systems, and reduce upfront construction costs. (See NRGinsulatedblock.com.)

Additionally, NRG saves on construction labor. When the mason lays the block, the wall is insulated and complete, so NRG walls cost less than standard block walls.

Available in any style and color, and also in a half-high version that is virtually indistinguishable from brick, NRG block outperforms conventional block in strength and sound-dampening qualities.

With an R-Value of R-22, backed by the principle of insulated thermal mass, NRG heats and cools a building for about one third the energy consumed by a building made from common block/brick. (Block/brick is more energy efficient than wood frame.)

This performance has been proven in over 100 buildings, from an 18,000 seat arena, to commercial, educational, industrial, public housing, retail, and residential use.

NRG block can produce savings of 275 million barrels of oil in ten years.

How? Since 80 % of residential energy is used in single family dwellings, and since there is ample DOE data available, take the single-family residential market for consideration. (Remember, though, NRG energy savings can be extended to all markets.)

Using data supplied by the US Department of Energy for the year 2006, assume a sharp decline in new single-family housing units, due to the economic downturn.

Assume one million new single-family housing units per year, a dramatic reduction from a 2006 figure of 1.6 million single-family homes. Assume these homes consume an average of 100 million Btu's per year, a little over half of which are dedicated to space heating (47%) and cooling (6%). (Source-US Department of Energy)

Hence, estimate annual heating and cooling energy consumption per new-build single-family unit at 50 million Btu, or about 8.75 barrels of oil. NRG block heats or cools a home while typically consuming about only one third this amount of energy. So NRG saves about five barrels of oil per unit annually. Substitute NRG for standard building materials in all new-build, single-family applications, and NRG saves five million barrels of oil next year.

The following year, institute the same building method, and NRG block saves another five million barrels on new-builds, plus an additional five million barrels from the previous year's housing stock, for a total second year savings of ten million barrels of crude oil, so after two years NRG block saves fifteen million barrels of oil.

Follow the trend: the third year, another one million NRG residential units compound the savings, and the three million units conserve another 15 million barrels of oil. By year number ten, just in the residential sector, NRG yields annual savings of fifty million barrels of crude oil, and conserves a total of 275 million barrels, or saves about eleven billion dollars, if oil is just forty dollars per barrel. Eleven billion dollars.

Eleven billion wasted: criminal. Eleven billion saved: heroic. NRG makes heroes.