

## **Case study:**

## compare NRG 12" vs. eQuest energy model w/R-53.4 walls designed to LEED 3.0

NRG 12": 38,000 sq ft church; actual gas bill from Jan 2010 to Dec 2010: \$9529.

NRG 12": 25 cents per sq ft heating (and hot water)

eQuest energy model of Ridgewood, designed to LEED 3.0, with R 53.4 walls (10" concrete block with 10" EPS @ R5/inch on interior wall) projected annual space heating cost: \$24,320.

R 53.4: 64 cents per sq ft heating cost

64 cents - 25 cents = 39 cents/ sq ft savings with NRG x 38,000 sq ft = \$14,820 annual savings

As the air conditioning is tied to the electric, the savings and cost of space cooling could not be estimated. Between the heating and cooling savings, the church board figures that the energy savings have already paid for the NRG wall; and before too long, the entire building will have paid for itself.

Worth mentioning, the gas provider did a preconstruction estimate (2003) that projected gas bills at about \$2000/ month. The church's board became nervous when several months went by, and they had not received a bill over \$565. The gas company came out to the site, and replaced the gas meter, thinking that it may be malfunctioning. The low gas bills kept right on coming. The meter works fine. With NRG, the dials just spin a lot slower.