

Incentives for High Performance Homes in New Mexico

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Overview

- Federal tax credits
- Examples: combining incentives
 - High Performance Home
 - 'Net-Zero' Energy Home
- Homeowner cashflow analysis
- Summary
- Resources for more information

Federal Tax Credits

- ❑ For Homebuilders
 - New Homebuilder tax credit (\$2,000)
 - ❑ Requires 50% improvement in heating and cooling related energy use
 - ❑ 10% of improvements from the building envelope
- ❑ For Homeowners
 - Solar PV systems (30% of cost, up to \$2,000)
 - Solar thermal systems (30% of cost, up to \$2,000)

Status

- Homebuilder, solar tax credits are scheduled to expire on Dec. 31st, 2008
- House legislation would extend the solar tax credits for 8 years; blocked in Senate
 - ❑ House Bill: HR 6049, the Energy and Job Creation Act of 2008.
 - ❑ Passed house on May 21st, 2008

High Performance Home Example

- ❑ 2,500 square foot home, Build Green NM Gold
- ❑ Qualifies for federal EE home tax credit; EE only
- ❑ Builder cost and incentives

■ Incremental cost (5-6%)	\$12,500 - \$15,000
■ Federal tax credit	(\$2,000)
■ State tax credit (Build Green – Gold)	(\$10,000)
■ Utility rebate (ENERGY STAR)	(\$500)
■ Net incremental cost:	\$0 - \$2,500
- ❑ Annual energy use versus a typical home
 - Grid electricity: 8,000 kWh (36% reduction)
 - Peak electricity demand reduced by 50%
 - Natural gas: 527 therms (52% reduction)
- ❑ Annual energy cost savings: \$1,600
 - ... Equivalent to 1 year of gasoline costs at \$4 / gallon for the average commuter!

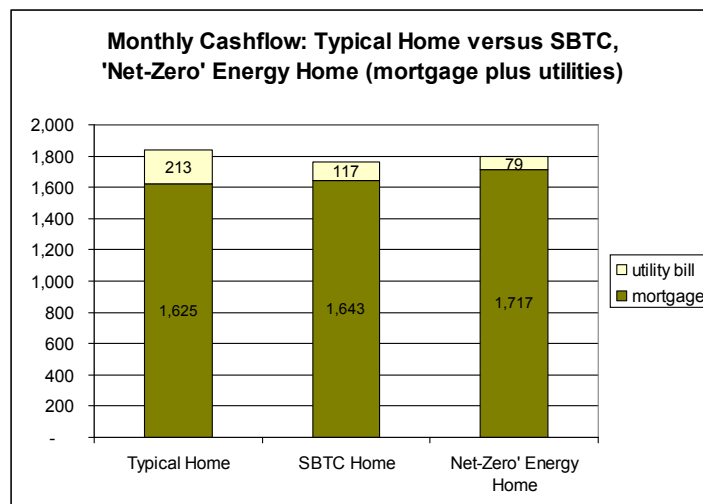
'Net-Zero' Energy Home Example

- 2,500 square foot home
 - EE measures plus 2 kW PV, solar thermal hot water
 - 50-60% energy savings
 - Builder qualifies for **federal EE tax credit**
 - Homeowner qualifies for **federal, state solar tax credits**
- Builder cost and incentives

■ Incremental cost: (~10%)	\$25,000
■ Federal tax credits	(\$2,000)
■ Utility rebates (ENERGY STAR, evap cooling)	(\$900)
- Builder's net incremental cost: **\$22,100**
- Homeowner incentives - solar PV, solar thermal

■ Federal tax credits	\$4,000
■ State tax credits	<u>\$5,500</u>
- Homeowner's net incremental cost: **\$12,600**
 - Annual energy cost savings: \$1,900

Both scenarios result in positive net monthly cash flow for the homeowner



Source: analysis by SWEPP

Summary: incentives and cash flow

	High Performance Home (EE only)	Net - Zero Energy Home (EE and RE)
Incremental cost	\$12,500 - \$15,000	\$25,000
Federal EE tax credit (builder)	\$2,000	\$2,000
SBTC (builder)	\$10,000	--
Utility rebate (builder)	\$500	\$500
Federal solar tax credits (homeowner)	--	\$4,000
State solar tax credits (homeowner)		\$5,500
Total incentives	\$12,500	\$12,000
Net incremental cost	\$0 - \$2,500	\$13,000
Annual energy savings, homeowner	\$1,600	\$1,900
Net savings, homeowner (mortgage + utilities)	\$ 78 / month	\$42 / month

Summary

- Federal, state and utility incentives are available for high performance homes
 - Designed to help overcome market barriers
 - High performance and net-zero energy homes both help New Mexico home owners reduce their monthly energy costs, with net savings
 - EE is most cost-effective, but ZEH achieves greater peak, kWh and natural gas savings
- What the homebuilding industry can do
 - Utilize tax credits / utility incentives to build more efficient homes and advance new design practices/technologies within the industry
 - Educate homebuyers about why a high performance home deliver better comfort, performance, and cost savings
 - Encourage federal and state policymakers to continue incentives and increase funding levels

For More Information

- Federal tax credits
 - www.energytaxincentives.org
 - www.dsireusa.org
 - Federal solar tax credit guidance
 - <http://www.seia.org/taxmanualdownload.php>
- State tax credits
 - www.CleanEnergyNM.org
- Utility programs and rebates
 - PNM
 - Energy efficiency
 - www.pnm.com/rebates/home.htm
 - Solar PV program
 - <http://www.pnm.com/customers/pv/program.htm>

SWEEP:

Dedicated to More Efficient Energy Use in the Southwest

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