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
  - 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 $5,500
- 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 SWEEP

Summary: incentives and cash flow

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

SWEEP:

Dedicated to More Efficient Energy Use in the Southwest

For More Information

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