

Federal, State and Utility Incentives for High Performance Homes in Nevada

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Overview

- Incentive types
- Federal and state tax credits
- Utility incentives
 - Homebuilders
 - Homeowners
- Examples
 - High Performance Home
 - Zero-Energy Home
- Summary

Incentive Types

Federal and State Tax Credits

- Homebuilder
 - New Homebuilder tax credit (\$2,000)
- Homeowner
 - Solar PV tax credit (\$2,000)
 - Solar thermal tax credit (\$2,000)
 - State Property tax exemption for renewable energy systems

Utility rebates and rate design

- Cooling, lighting incentives
- Solar PV buydown
- Net metering with time of use rates

Federal and State Tax Credits

	Tax Credit To / Amount	
	Builder	Homeowner
<i>Federal Tax Credits (expire 12/31/08)</i>		
Energy efficient new homes	\$2,000	
Solar PV systems		\$2,000
Solar thermal systems		\$2,000
<i>State Tax Credits / Exemptions</i>		
Property Tax Exemption – solar systems		RE systems not included in assessment values

Utility Programs and Incentives Energy Efficiency

- Energy Efficiency
 - **AC Rebates for Builders and Contractors**
 - **\$60 to \$235 per ton for builders**
 - Example (split system)
 - 5 Ton Air Conditioning Unit X \$235 per Ton (Tier 3) = \$1,175.00 rebate to homebuilder
 - **Contractor rebates**
 - Refrigerant Charge Air Flow Service: \$20 per ton
 - Duct Testing and Sealing Service: \$45 per ton
 - **New ENERGY STAR 'Plus' Incentive**
 - **Renewable energy**
 - PV: \$2.50/watt (grid connected)
 - 2 kW system = \$5,000 rebate (approx. 33% of cost)
 - Net metering tariff with carry-forward and TOU rates

High Performance Home Example

- 30-40% energy savings versus 2006 IECC from EE measures
- Builder incentives
 - Incremental cost: \$3,500 - \$4,000
 - Federal tax credit (\$2,000)
 - Utility rebate (Tier 3 HVAC) (\$1,175)
 - Net incremental cost: **\$325 - \$825**
- Annual savings versus a typical home
 - Grid electricity: 9,300 kWh (47% reduction)
 - Peak electricity demand reduced by 50%
 - Natural gas: 370 therms (56% reduction)
 - Annual energy cost savings: \$1,600

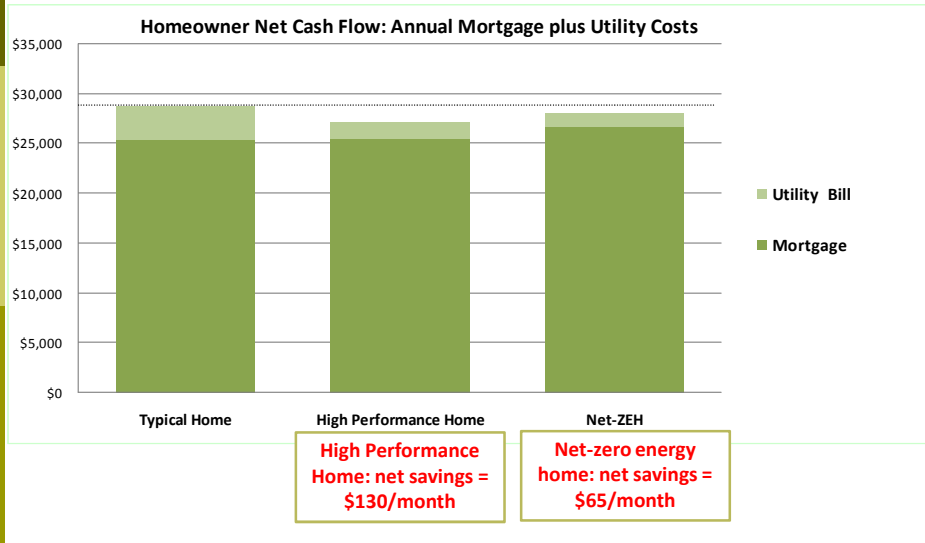
Zero-Energy Home Example

- 50% or greater energy savings versus 2006 IECC
 - EE measures plus 2 kW PV
- Incremental cost to builder
 - Incremental cost: \$19,000 - \$20,000
 - Federal tax credit (\$2,000)
 - Utility rebates – EE (Tier 3 HVAC) (\$1,175)
 - Net incremental cost (builder): **~\$16,000 – 17,000**
- Annual savings versus a typical home
 - Grid electricity: 12,100 kWh (61% reduction)
 - Peak electricity demand reduced by 70%
 - Natural gas: 370 therms (56% reduction)
 - Annual energy cost savings: \$1,700
 - Value of PV generation: \$300 per year

Summary: incentives and cash flow

	High Performance Home (EE only)	Zero Energy Home (EE and RE)
Incremental cost to builder	\$4,000	\$20,000
Federal EE tax credit	\$2,000	\$2,000
Utility incentives	\$1,175	\$1,175
Total incentives	\$3,175	\$3,175
Net cost to builder	\$825	\$16,825
Homeowner tax credits (federal)		\$4,000
Annual energy savings, homeowner	\$1,675	\$2,000
Net savings, homeowner (mortgage + utilities)	\$130 / month	\$50 / month

Homeowner cash flow



Summary

- Federal, state and utility incentives are available for high performance homes
 - Designed to help overcome market barriers
 - High performance / net-zero energy homes will help Nevada homeowners reduce their monthly energy costs w/ net savings
 - EE is most cost-effective, but ZEH achieves greater peak, kWh savings
- What the homebuilding industry can do
 - Utilize incentives to build more efficient homes and advance new design practices/technologies within the industry
 - Educate homebuyers about why high performance is a better value, and their incentive options
 - Encourage federal and state policymakers to continue incentives and increase funding levels

For More Information

- Federal tax credits
 - www.energytaxincentives.org
 - www.dsireusa.org
- State tax credits
 - energy.state.nv.us/renewable/incentives.htm
- Utility incentives
 - Nevada Power
nevadapower.com/conservation/home/home_rebates/
 - Sierra Pacific Power
www.sierrapacific.com/conservation/home/home_rebates/
 - Solar PV systems
www.solargenerations.com

SWEEP:

Dedicated to More Efficient Energy Use in the Southwest

For More Information

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Southwest Energy Efficiency Project (SWEEP)

www.swenergy.org