ENERGY & WATER EFFICIENCY: INCENTIVES AND FINANCING

Jim Riggins
SECRES
Overview

• Federal Incentives
• Colorado Incentives
• Local Utility Incentives
• Rural Energy for America (REAP) Grants
• 30% federal tax credit
• Applies to solar, wind and geothermal systems
• Expires December 31, 2016
Federal: FHA PowerSaver Loan

• Applies to energy efficiency upgrades and renewable energy installation

• Loan Amounts
  - Home Energy Upgrade: $7500 (4.99% to 7.75%)
  - Second Mortgage: $25,000 (4.99% to 9.99%)
  - First Mortgage Energy Rehab: varies...up to $625,000

• Lenders: energy.gov/eere/buildings/maps/powersaver-loans
Federal: Energy Efficient Mortgage; Energy Improvement Mortgage

- EEM: typically applies to new home mortgage
- EIM: typically applies to refinancing existing mortgage
- Credits energy efficiency in a mortgage
- Allows for higher debt-to-income ratio in loan
- Offered through FHA, VA-- limits vary
  - VA: Applies to existing homes; $3000 to $6000 cap
  - FHA: Existing home or new construction; increase mortgage lesser of 5% of
    - The property value
    - 115% of median area price
    - 150% of conforming Freddie Mac limit

- Process:
  - RESNET rater performs formal HERS rating
  - Rater consults with buyer to determine proposed upgrades
  - Energy modeling determines annual savings and payback time
  - Report with financial analysis presented to lender

- Details: www.resnet.us/professional/ratings/mortgages
Federal: Fannie Mae Green Initiative

• Low interest loan program for multifamily residential building owners
• Applies to energy efficiency upgrades
• Details:  www.fanniemae.com/multifamily/green-initiative
Federal: Low Income Family Assistance

Howard Brooks
Executive Director
Energy Resource Center

719-591-0772
www.erc-co.org/
Colorado Residential Incentives

- Colorado Energy Saving Mortgage: new or existing homes
- Grant provided to buyer at closing
  - New Home: $1500 to $6000
  - Existing Home: $750 to $3000
- New home grant based on Home Energy Rating System (HERS) score
- Existing home grant based on degree of energy efficiency improvements
- Details: www.colorado.gov/pacific/energyoffice/mortgage-incentive-homes
Local Utility Incentives

Doug Bursnall
Colorado Springs Utilities
Demand Side Management Conservation Specialist

dbursnall@csu.org
719-668-8503
Pyramid of Conservation

- PV rebate
- Window rebate
- Furnace rebate
- Solar H/W rebate
- Insulation rebate
- Energy Star rebate
- Duct & air sealing rebate
- Retail markdown
- CEC exchanges, HEAP
- MyUsage, Profile, CEC
• MyUsage

Education and information

Electricity Usage from 11/12/2014 to 11/12/2015

Total consumption displayed: 4,295 kWh
Total since last billing read: 4,080 kWh
Average daily usage since last billing: 11 kWh

Water Usage from 11/12/2014 to 11/12/2015

Total consumption displayed: 3,299 CF
Average daily usage: 14.4 CF
Total since last billing read on 11/12/2015 (11 days): 153 CF
Average daily usage since last billing read: 25 CF

Your Usage Compared to Other Residential Customers

Gas Usage from 11/12/2014 to 11/12/2015

Total consumption displayed: 768 CCF
Average daily usage: 31.8 CCF
Total since last billing read on 11/12/2015 (11 days): 31 CCF
Average daily usage since last billing read: 2.82 CCF

Your Usage Compared to Other Residential Customers

Water (CP)

Gas (CCF)
**Home Energy Audit**

<table>
<thead>
<tr>
<th>HOME</th>
<th>ENERGY SNAPSHOT</th>
<th>COMPARISON TOOL</th>
<th>APPLIANCE CALCULATOR</th>
<th>ENERGY LIBRARY</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Energy Snapshot Dashboard" /></td>
<td><img src="image" alt="Home Review report for Doug B" /></td>
<td><img src="image" alt="Natural Gas Usage by Month Therms" /></td>
<td><img src="image" alt="Potential Cost Savings" /></td>
<td><img src="image" alt="Electricity Usage by Month kWh" /></td>
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<tr>
<td><img src="image" alt="Enter Bill History" /></td>
<td></td>
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<td><img src="image" alt="Energy Savings Checklist For Your Home" /></td>
</tr>
<tr>
<td><img src="image" alt="Create a New Energy Snapshot" /></td>
<td><img src="image" alt="Replace Aging Furnace" /></td>
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<tr>
<td><img src="image" alt="Print Energy Snapshot" /></td>
<td><img src="image" alt="Replace Lights" /></td>
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<tr>
<td></td>
<td><img src="image" alt="Replace Water Heater" /></td>
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<td><img src="image" alt="Insulate Floors" /></td>
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<td><img src="image" alt="Check Weather Stripping" /></td>
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</tbody>
</table>

**Top 5 Energy Tips & Recommendations**

- Start Here
- Home Review report for Doug B
- Natural Gas Usage by Month Therms
- Potential Cost Savings
- Home Energy Audit
- Energy Savings Checklist For Your Home
Conservation and Environmental Center

Exchange your old holiday lights to receive 50% OFF
Celebrations by ACE Brand Holiday LED Light Set

Through Dec. 23, 2015, exchange your old lights at our Conservation and Environmental Center, 2855 Mesa Rd., to receive coupons for 50% off qualifying lights.
Incentives

- Retail markdown program

- Home Depot
- ACE Hardware
- Walmart, Sam’s Club
- Costco, Lowes
- Target, Batteries Plus
# Rebates

<table>
<thead>
<tr>
<th>Item</th>
<th>Rebate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Star furnaces</td>
<td>$250</td>
</tr>
<tr>
<td>Energy Star boilers</td>
<td>$250</td>
</tr>
<tr>
<td>Energy Star water heaters</td>
<td>$50</td>
</tr>
<tr>
<td>Insulation and air sealing</td>
<td>40% of cost up to $200</td>
</tr>
<tr>
<td>Duct sealing</td>
<td>40% of cost up to $100</td>
</tr>
<tr>
<td>Energy Star Dryers</td>
<td>$50</td>
</tr>
<tr>
<td>Energy Star windows</td>
<td>Up to $200</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Various</td>
</tr>
<tr>
<td>Solar PV</td>
<td>$0.50/AC watt, after June 30th $0.25/AC watt</td>
</tr>
<tr>
<td>Solar Thermal</td>
<td>30kBtu = $1,500, 60kBtu = $3,000</td>
</tr>
<tr>
<td>HEAP</td>
<td></td>
</tr>
<tr>
<td>Refrigerator</td>
<td>Not in 2016</td>
</tr>
</tbody>
</table>
Mountain View Electric Association

• Rebates
  - High efficiency heat pumps
  - High efficiency electric water heaters
  - Energy Star refrigerator, washer, dishwasher
  - LED light bulbs (50% rebate)

• Summary at
  - www.mvea.coop/residence/energy-efficiency-rebates/
Black Hills Energy
Efficient New Construction Rebates (Gas)

• Must heat the house with BHE gas
• 2 Paths: Prescriptive or Performance
• Up to $2700 in rebates to builder
• Closely mirrors Energy Star thermal envelope guidelines
• Requirements for heating system, water heating, and envelope
• Information at:
Black Hills Energy
Efficient New Construction Rebates (Electric)

- Rebates for high efficiency appliances and electric heating/cooling
- Rebates for envelope upgrade (home must have electric heating and cooling)
- Rebate to recycle old refrigerators
- Lighting: Buy at reduced cost 12 CFL or 5 LED bulbs from participating stores
- Solar Electric Systems
  - Up to 10 kilowatt systems
  - $0.05 per kWh production based incentive
- Information at:
Rural Development Energy Programs

• USDA Funded, Four Programs
  - Three biofuel related programs
  - Rural Energy For America Program (REAP)

• REAP
  - Renewable energy and energy efficiency loans and grants [For rural small businesses]
  - Energy Audit and Renewable Energy Development grants [For rural small businesses]
  - Feasibility Studies Grant Program

• http://www.rurdev.usda.gov/energy.html
Resources

- Summary of Federal, State and Local Incentives:  www.dsireusa.org/
- Energy Resource Center:  www.erc-co.org/
- Colorado Springs Utilities energy and water efficiency rebates
  - www.csu.org/Pages/resrebates.aspx
Next Seminar

SECRES Seminar #4

Residential Renewable Energy: Basics, Cost and Return on Investment

Saturday, December 12th