



Black Hills Energy –Colorado Electric Operations

Improving Life with Energy

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Black Hills Energy 2009 Sustainability Initiatives

- Weatherization
- Advanced Metering Infrastructure
- Renewable Energy
- Demand Side Management
- Residential Energy Efficiency Programs
- LED Lighting

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Weatherization



- **Weatherize and install CFLs before any other measures**
- **Most homes can do simple weatherization (weather stripping, caulking, door sweeps, window treatment) for less than \$150**
- **BHE volunteers weatherize about 40 homes every year in Pueblo, Rocky Ford, Canon City**

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Advanced Metering Infrastructure

- Every home and business in Pueblo will have a smart meter by 8/31/09
- AMI will take 12 vehicles (and their carbon footprint) off the streets
- Virtually 100% accurate
- Remote turn-on/turn-off
- Enables “whole house” connectivity

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Renewable Energy-Solar

- **BHE-Colorado Electric has highest per capita solar generation in US outside CA and HI (both of whom have rates more than twice BHE)**
- **240 active solar projects—more than 130 others in process**
- **CSU-Pueblo array is 4th largest in US on a campus**
- **Only Platinum LEED certified Medical Center in CO**
- **Several planned for area schools and public buildings**



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Renewable Energy-Wind

- Currently 5% of BHE Portfolio is wind energy
- Wind will be about 18% of Portfolio by 2020
- BHE considering wind generator ownership/partnership



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Demand Side Management

- July 1, 2009, BHE launched a DSM program consisting of 12 energy efficiency products
- Lowest cost energy is energy not used.
- Something for every customer class:
 - Low Income
 - Industrial/Commercial
 - Schools
 - Residential
- Will save 96,000 MWH/Year by 2018—enough energy to power 10,000 homes



Residential Energy Efficiency Programs

- **Low Income Assistance**
 - Provides free EE refrigerators, CFL lights and swamp coolers (600 families/year)
- **Residential High Efficiency Lighting**
 - Rebates on CFL of \$1.60/bulb (limit 10)
- **Residential High Efficiency Cooling**
 - Rebates for efficient A/C, HP, Swamp Coolers –up to \$400 for above 13 SEER
- **Residential Construction**
 - Rebates to Builders up to \$750 for EnergyStar appliances

LED Lighting

- BHE, City of Pueblo and CSU Pueblo partnering on an LED Pilot Project
- One of a few such projects in the country—others in Austin, Ann Arbor, Raleigh
- Preliminary results very encouraging



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Questions?

