

Dominion Virginia Power: Energy Efficiency & Demand Reductions



About Dominion: Diverse Generation Mix

Dominion Virginia Power



About Dominion: Low Carbon Intensity

100 Largest U.S. Power Producers (Pounds CO₂ per MWh Output)



Source: Natural Resources Defense Council, 2008 Study

Demand is up Nationwide...



Source: Energy Information Administration, U.S. DOE

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...And Here in Virginia

Terra-watt hours



Source: Energy Information Administration, US Dept of Energy

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Our Must-Haves Grow



Here's Where it Goes



Almost half of a home's energy use goes to heating and cooling

Average Home

Dominion's Integrated Strategy

- Increased number of demand-side management programs
- Environmentally friendly generation, including renewable, clean coal, natural gas, and nuclear
- Transmission and delivery system improvements, including "smart meters"



Dominion Rate Comparison

U.S. Average Residential Monthly Bill vs. Consumer Price Index vs. Dominion Virginia Power 1993 – 2009



Sources: Consumer Price Index: U.S. Bureau of Labor Statistics, January 1993 to January 2009 U.S. Average: Edison Electric Institute, Winter Rate, Residential, 1,000 kWh, Monthly Dominion Virginia Power: Edison Electric Institute, Winter Rate, Residential, 1,000 kWh, Monthly

Dominion's Response:

- Implemented Energy Conservation Pilots
 in early 2008
- Filed for long-term programs in July 2009
- Filed first Virginia Integrated Resource Plan on September 1, 2009
 - Includes future Energy Efficiency and Peak-shaving programs beyond current filing





"Smart Grid" Technology: Intelligent Systems for the Grid

"Smart" technology: Using intelligent systems to manage delivery systems, from transmission lines to the home. -Stimulus funding opportunities

46,500 meter demonstration in Charlottesville announced 6/09

"A new smart grid...will save us money, protect our power sources....and deliver clean, alternative forms of energy to every corner of the nation." President Obama, January 26, 2009

Current Filing

- 12 programs
 - One peak-shaving program and 11 Energy Efficiency programs as defined by HB2506
- Programs include:
 - Rebates on CFLs
 - Voltage Conservation (AMI enabled)
 - Energy Star New Home Incentives
 - Air conditioner Control (peak-shaving)
 - Low income energy audits
 - Old refrigerators turn-in programs
 - Residential heat-pump "tune-up" & Upgrades
 - Commercial lighting & HVAC Upgrades
 - Commercial Distributed Generation & Curtailment Service
- If approved by SCC, the company plans to implement beginning in 2010



What are the Costs & Benefits?

For an increase of about \$0.95/month for a residential customer averaging 1000 KWh's of energy usage a month, the delaying of building new generation due to increased energy conservation and demand reductions equates to a savings of more than \$1.2 Billion over a 15 year period!



