

Virginia Commission on Energy and Environment

Implementation of the Virginia Energy Plan

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Virginia Energy Plan Goals

- **Increase energy independence**
 - 40% reduction in rate of growth – energy efficiency
 - 20% increase in in-state energy production
- **Energy education**
- **Climate change**
 - 2000 GHG emission levels 30% below BAU by 2025
- **R & D / economic development**
 - Alternate fuels, nuclear technologies, coastal energy, carbon capture & storage
- <http://www.dmme.virginia.gov>

Energy Efficiency Results

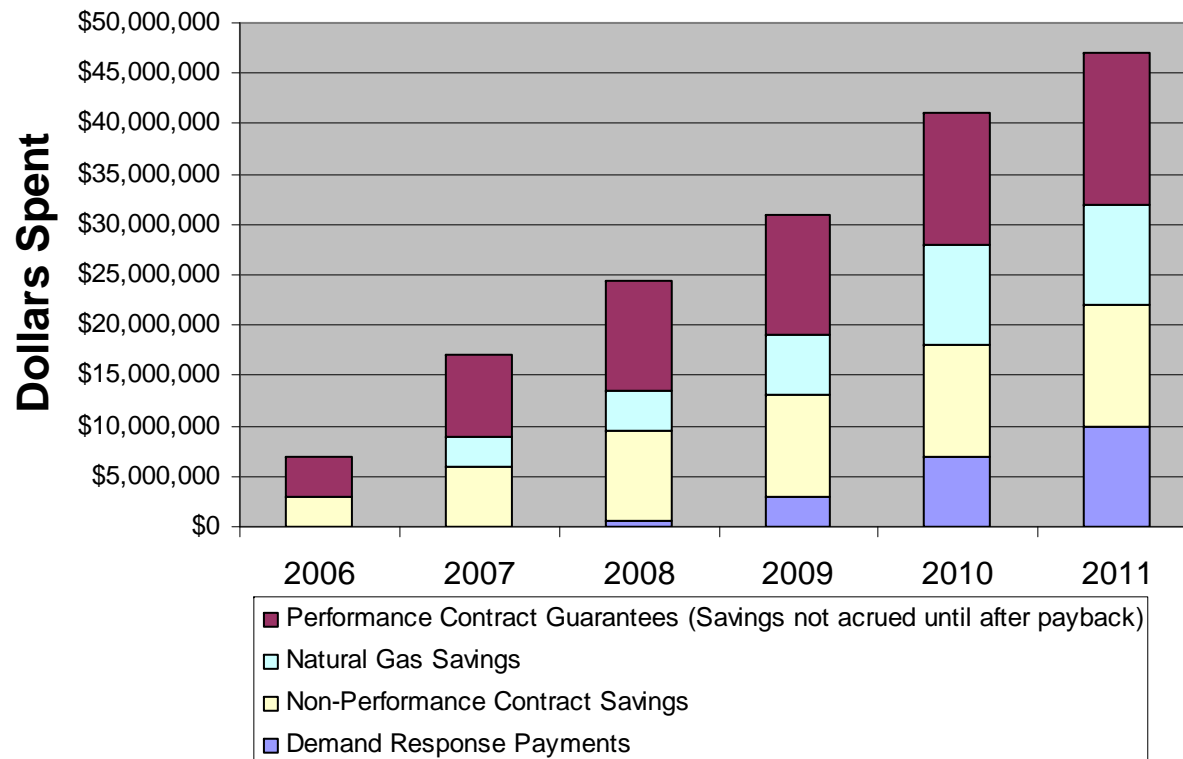
- Electric utility efficiency pilots & new plans
- Natural gas rate decoupling & efficiency programs
- Energy Star sales tax holiday – expand to Water Sense products this fall
- Government lead by example
 - Virginia Energy Management Program tools
 - LEED buildings – state universities, VDOT
 - Local examples – projects, tax incentives, VML Go Green
- CAFE increases and other federal actions
- 2006 energy building code update
- Net metering at + 400 kW
- Virginia Resources Authority – expanded role

Energy Efficiency Results

- **Government actions – Lead by example**
 - State government
 - State Executive Order 48
 - Virginia Energy Management Program
 - Telework goal – 20 % eligible employees; once per week
 - LEED/Energy Star for new facilities, renovations, leases
 - Energy Star equipment purchases
 - Alternate fuels and vehicle efficiency consideration
 - Local governments
 - Cool Cities, Cool Counties, VML Go Green Virginia
 - LEED/Energy Star/Green Globe buildings – Property tax incentives, density increases, reduced fees & permit prioritization
 - Other tax incentives - hybrid vehicles, solar systems
 - Account for energy in regulation of development

State Progress & Projection

Total Facility Energy Cost Avoided by Year



Energy Supply & Infrastructure Results

- Electric utility integrated resource planning
- Green power tariffs
- Virginia City Power Plant
- Renewable portfolio standard – announced projects & plans
- Wind
- Electric transmission lines
- HRX pipeline
- Expanded Yorktown refinery capacity
- New biodiesel plants; biodiesel/green diesel tax credit
- Switchgrass at Piedmont Geriatric Hospital
- Norfolk light rail
- DC Metro Dulles extension progress

Energy Education Results

- Energy Conservation Awareness Week – First week in October
- Electric energy efficiency consumer education
 - SCC to develop; funded through SCC fees
- Hydrogen education at middle schools (with NEED)
- Solar-Wind rating system for localities
- Farmer biofuel production training; permitting guide
- COVES & other conference/presentations
- State Fair
- State wind conference

Energy and the Environment Results

- **Governor's Commission on Climate Change**
 - Action plan by December 15, 2008
 - Calculate size & contributors to carbon footprint
 - Effects of increased GHG emission on state
 - Needs to prepare for likely consequences
 - Actions in other states and regions
 - Actions needed in Virginia to meet goal
 - Work phases
 - Background knowledge, workgroups, recommendations & report

<http://www.deq.virginia.gov/info/climatemembers.html>

Research & Development Results

- Tobacco Commission energy R&D park funding
 - Fund five centers, continue one project
- Virginia Coastal Energy Research Consortium
 - Algae to biodiesel; offshore wind
- Commonwealth Technology Research Fund
- Center for Coal and Energy Research
 - Carbon sequestration phase II-b
- Ongoing university energy research
 - Biofuels, fuel cells, conservation, other
- New business development

Ongoing Implementation

- **Energy efficiency & supply**
 - Raising costs – promote conservation; low/fixed income impact; production increases
 - Utility efficiency plans
 - To meet 10% electric savings goal
 - Natural gas decoupling/energy efficiency
 - Efficiency for other fuel users
 - Fuel oil, propane, other
 - Funding challenges
 - DOE State Energy Plan cuts; state budget
 - Federal special topical grants
 - Expanded use of ESCO model
 - VRA opportunities to partner with localities

Ongoing Implementation

- **Energy efficiency & supply**
 - Building energy code updates – 2009 and 2012
 - Transportation
 - Adequate support for transit, rail, & roads
 - Sustainability of transit demand growth
 - Electric integrated resource planning – supply and demand balance
 - Power plant/pipeline construction
 - NIETC and transmission need study
 - Biofuels
 - Food vs. fuel
 - Biofuels and the Bay
 - Project development & local acceptance

Ongoing Implementation

- **Energy efficiency & supply**
 - OCS – Minerals Management Service actions
 - Natural gas and petroleum exploration and drilling
 - Renewable resources
- **Energy education**
 - SCC energy efficiency consumer ed plan; RFP for partnering
 - COVES, ARC/AWEA wind symposium/other
 - Energy Star sales tax holiday – dates & coverage
- **Energy and environment**
 - Climate Change Commission recommendations
 - Adaptation
 - Reduce GHG emissions
- **Energy R&D**
 - Reliable, long-term funding for R&D operations