

Virginia Energy Plan

Status of Recommendations

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Energy and Environment
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Stephen A. Walz
Senior Advisor for Energy Policy
Director, Department of Mines, Minerals and Energy
804-692-3211
Stephen.Walz@governor.virginia.gov



Virginia Energy Policy

Code of Virginia, Title 67

Summary: Energy Policy & Objectives

- Ensure availability of reliable energy reasonable costs
- Establish sufficient infrastructure
- Use resources efficiently & facilitate conservation
- Facilitate development of Virginia's low cost resources, including clean coal and natural gas
- Facilitate development of less polluting energy sources
- Foster energy R&D
- Address environmental protection with energy facilities

Virginia Energy Plan

Outline

1. Introduction and Executive Summary
2. Virginia Energy Resources & Consumption
3. Energy Efficiency & Conservation
4. Energy Infrastructure
5. Energy and the Environment
6. Energy Research & Development
7. Recommendations

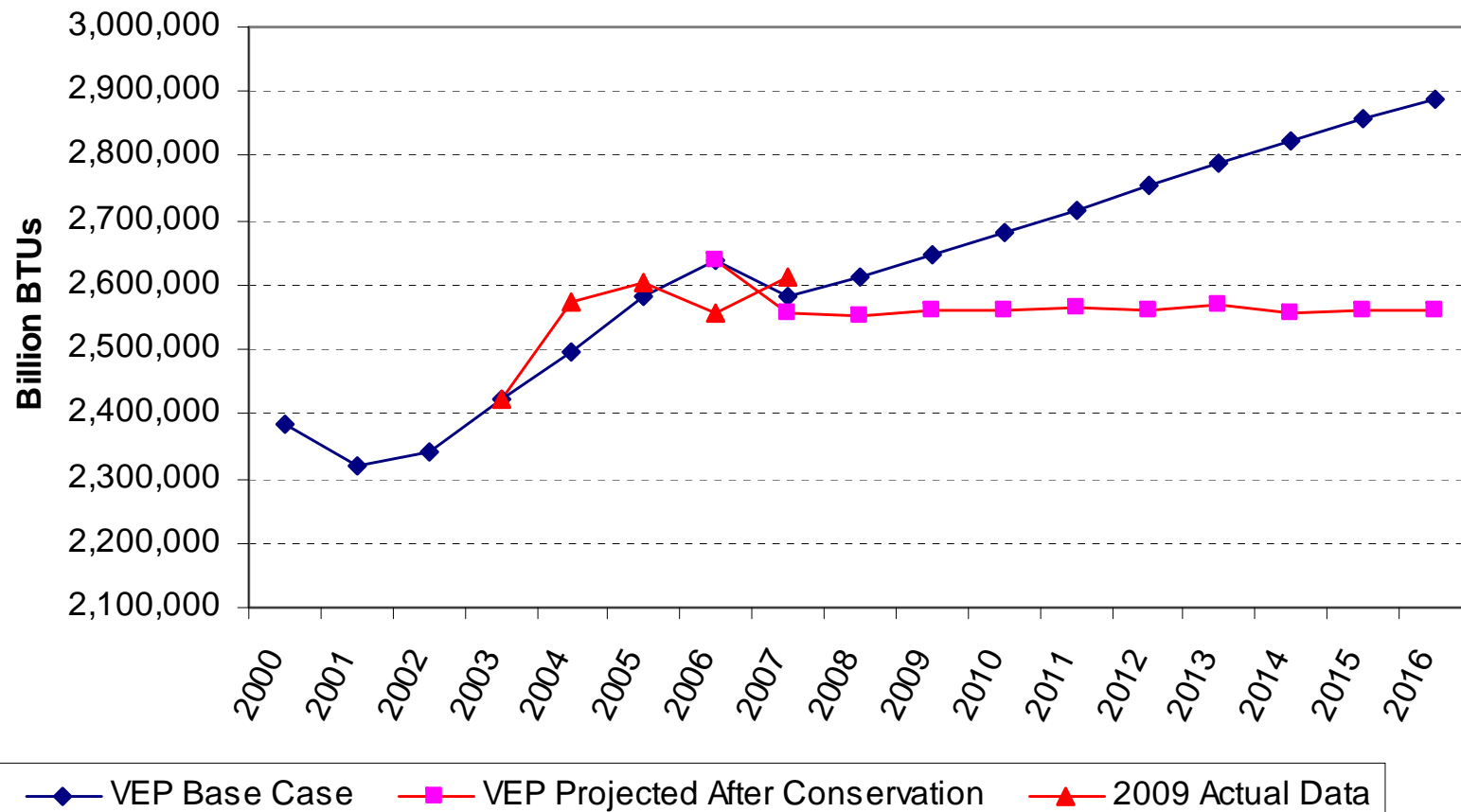
Virginia Energy Plan Goals

- **Increase energy independence**
 - 40% reduction in rate of energy growth base case
 - 20% increase in in-state energy production base case
- **Expand consumer energy education**
 - Overcome barriers to consumer action
- **Climate change**
 - 2000 GHG emission levels by 2025; \approx 30% from BAU
- **R & D / economic development**
 - Alternate fuels, nuclear technologies, coastal energy, carbon capture & storage

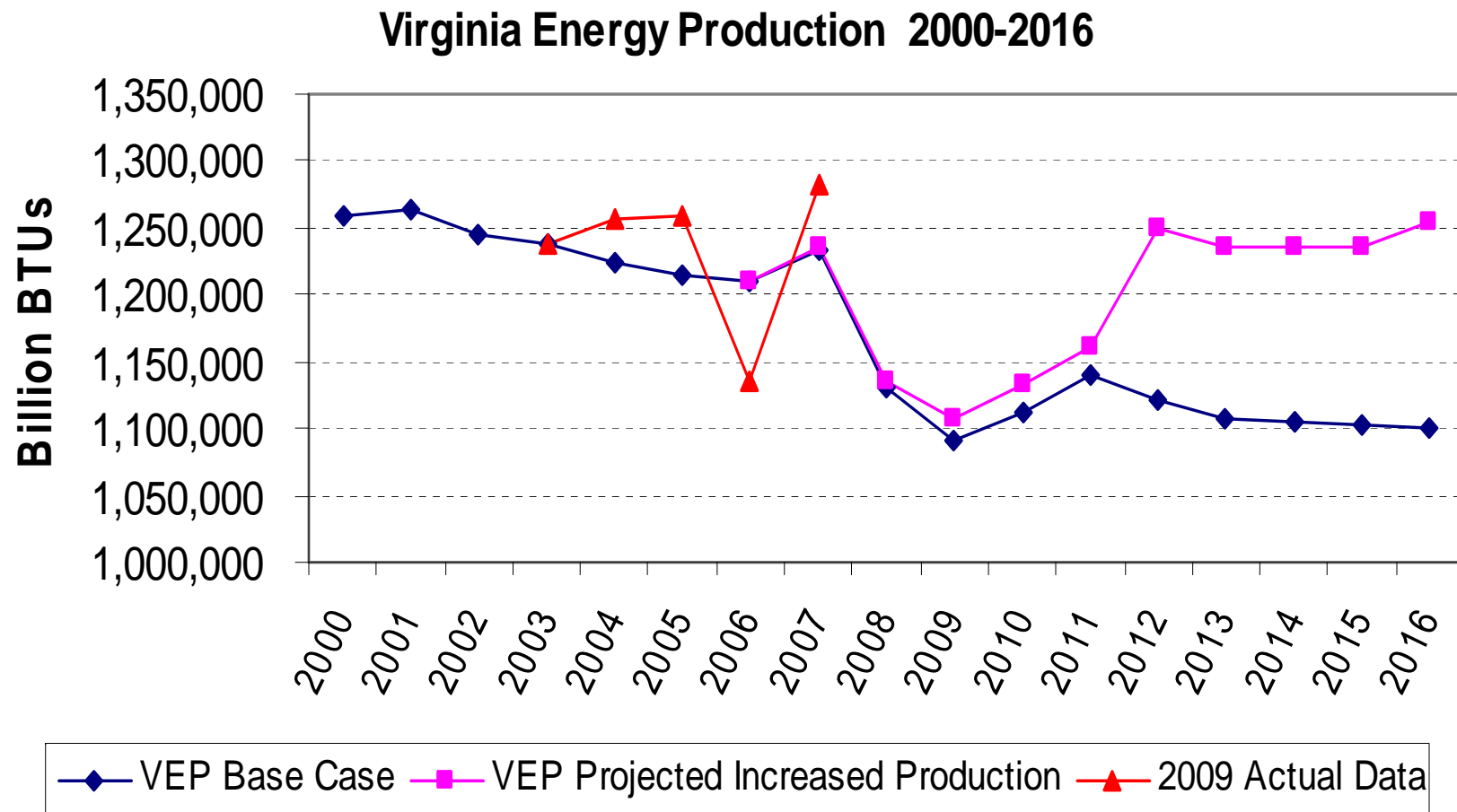
<http://www.dmme.virginia.gov>

Goal 1 – Reduce Energy Consumption

Virginia Energy Consumption 2000-2016



Goal 1 – Increase Energy Production



Goal 1 Recommendations

- Increase efficiency incentives
 - Federal income tax incentives expanded in ARRA
 - Two October Energy Star state sales tax holidays
 - \$15 million State Energy Program ARRA rebates
- Utility efficiency programs
 - 2008 natural gas conservation/decoupling – Virginia Natural Gas and Columbia Gas of Virginia
 - 2009 electric utility – level playing field between returns for efficiency & generation – Dominion portfolio filed with SCC
 - Electric cooperatives demand response and conservation programs
 - \$7 million ARRA to expand utility Energy Star equipment rebates
 - Dominion, coops, municipal smart grid investments

Goal 1 Recommendations

- Weatherization Assistance Program
 - Double formula funding
 - \$94 million ARRA
- Policies to improve building stock
 - 2009 model code implementation; 2012 planning
 - VHEN builder and energy auditor training
 - Home Builders Association – Earth Craft Homes
 - Executive Order 82 – New State LEED/Green Globes

Goal 1 Recommendations

- Residential, commercial, industrial consumers
 - Expanded federal income tax credits
 - \$15 million State Energy Program ARRA efficiency rebates
 - SE industrial efficiency program
- Deploy new technologies
 - \$5 million State Energy Program ARRA for new jobs in clean energy technology commercialization

Goal 1 Recommendations

- **Lead by example**
 - Executive Order 82 – 25% goal by 2012; Energy savings performance contracts; demand response; natural gas and heating oil purchasing; energy manager training; fleet efficiency standards
 - Local government climate and sustainability plans; EECBG ARRA efficiency investments
- **Transportation systems**
 - Increased transit funding – Norfolk light rail construction; Dulles Metro expansion
 - Northern Virginia HOT lanes
 - Executive Order 82 – 2% biodiesel after July 1, 2010
 - Multi-modal state transportation plan

Goal 1 Recommendations

- Expanded renewable production
 - Expanded RPS
 - VCERC offshore wind R&D
 - DEQ permit by rule for small renewable systems
 - \$38 million State Energy Program ARRA funding for solar/wind
 - RPS excess production payments
 - New interconnection standards and right of way access
 - Highland New Wind under construction; expanded landfill gas generation
- Energy infrastructure investments
 - Electric transmission and distribution lines
 - HRX natural gas pipeline crossing
 - MMS OSC oil and gas lease sale 220
 - Biofuels production and pipeline shipment

Goals 2 Recommendations

- Expanded energy education
 - SCC Consumer Education Plan

Goals 3 Recommendations

- Energy and environment
 - Governor's Commission on Climate Change
 - No state GHG reporting; EPA rule development
 - Land use – transportation standards
 - New secondary road standards for compact development
 - High growth localities
 - Urban development areas
 - Transportation impact fees
 - Transportation service districts
 - CTB transportation and land use performance measures
- SW VA carbon capture and storage test

Goal 4 Recommendations

- Reliable investments in energy RD&D
 - Tobacco Commission RD&D investments
 - \$40 million in 5 energy technology centers
 - Up to \$100 million in energy commercialization deployment
 - VCERC investments – algae and offshore wind
 - VT Center for Coal and Energy Research
 - State university internal fund investments
 - CIT SBIR/STTR assistance
 - Difficulties in matching federal funds

Goal 4 Recommendations

- Interagency Task Force for Energy Project Recruitment
- \$5 million State Energy Program ARRA planned for new jobs in clean energy businesses
- Nuclear support – AREVA, Babcock & Wilcox, Northrop Grumman
 - Lynchburg and Campbell County facilities
 - Newport News reactor component manufacturing
- Coal and Energy Commission uranium mining study