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Energy:

Policies and Programs in Virginia

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# Types of Policy Actions

- Mandates and prohibitions
  - Leading by example
  - Financial incentives
  - Regulatory incentives
  - Deliberative and administrative bodies
  - Promotion and education
  - Policy declarations
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# Mandates and Prohibitions

- Net metering (§ 56-594)
    - Requires utilities to purchase the excess power from customer-generators using renewable fuels.
  - Covenants restricting solar energy collection devices (§ 67-700 et seq.)
    - Forbids community associations from prohibiting an owner from installing or using a solar energy collection device on that owner's property.
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# Leading by Example

- Energy Efficiency in State Government (Executive Order 48)
    - ❑ Executive branch agencies and institutions to reduce the annual cost of non-renewable energy purchases by at least 20% by 2010.
    - ❑ Certain new and renovated facilities to be designed and constructed consistent with the energy performance standards at least as stringent as the U.S. Green Building Council's LEED rating system or the EPA/DOE's "Energy Star" rating.
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# Leading by Example

- Energy and Operational Efficiency Performance-Based Contracting Act (§ 11-34.1 et seq.)
    - Aims to stimulate “investment in energy conservation measures and . . . reduce the amount of energy consumed, reduce long-term operational costs and produce immediate and long-term savings.”
    - Permits government entities to enter into contracts for energy conservation measures where cost savings from improvements will exceed the cost of installation.
    - Commits that “state aid and other amounts appropriated for distribution to public bodies shall not be reduced as a result of energy and operational savings.”
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# Leading by Example

- Telecommuting and alternative work policy developed by the Secretary of Administration (§ 2.2-2817.1 and Executive Order 35)
    - The heads of agencies shall develop a telework alternative work policy and set annual percentage targets for the number of eligible positions. By 2009 each state agency shall have a goal of not less than 25% of its eligible workforce participating.
  - Green Schools Program (§ 22.1-212.1:2)
    - Permits the Board of Education to develop and local school boards to adopt a green schools program that focuses on waste reduction and resource efficiency.
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# Types of Financial Incentives

- Direct assistance
    - Grant programs
    - Enhanced loan access
  - Indirect assistance
    - Income tax credits
    - Sales and use tax exemptions
    - Lower property tax rates
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# Financial Incentives: Grant Programs

- Commonwealth Technology Research Fund (§ 2.2-2233.1)
    - Awards monies to attract public and private research funding for institutions of higher education in several technical and scientific fields including energy.
  - Tobacco Indemnification and Community Revitalization Commission (§ 3.1-1106 et seq.)
    - Awards grants from funds from the Master Settlement Agreement to stimulate new industries in formerly tobacco-dependent areas.
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# Financial Incentives: Grant Programs

- Solar Photovoltaic Manufacturing Incentive Grant Program (§ 45.1-392)
    - Rewards eligible manufacturers of solar photovoltaic panels with a grant measured by the number of watts produced.
  - Biofuels Production Incentive Grant Program (§ 45.1-393 et seq.)
    - Rewards large producers of biofuels with a grant measured by the number of gallons produced.
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# Financial Incentives: Grant Programs

- Home Energy Assistance Program (§ 63.2-805)
    - Awards grants to supplement federal monies appropriated in the Low-Income Home Energy Assistance Program and the Weatherization Assistance Program.
  - Clean Coal Technology Research Fund (§ 67-400 et seq.)
    - Grants to encourage and finance academic research that advances new clean coal technologies.
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# Financial Incentives: Grant Programs

- Renewable Electricity Production Grant Program (§ 67-900 et seq.)
    - DMME may award grants to eligible corporations for kilowatt hours of electricity produced from renewable fuels.
  - Grants to support new and emerging crops (§ 3.1-14.5)
    - VDACS to provide funds to encourage the production of alternative crops and bioenergy feedstocks.
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# Financial Incentives: Grant Programs

- Solar and Wind Energy System Acquisition Grant Program (§ 67-1000 et seq.)
    - Eligible individuals or corporations may receive a grant for 15% of the installed cost of photovoltaic property, solar water heating property, or wind-powered electrical generators.
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# Financial Incentives: Loan Access

- Virginia Resources Authority (§ 62.1-198 et seq.)
    - Loans money to local governments for various infrastructure improvements including energy conservation and energy efficiency projects.
  - Loans from Literary Fund for converting school buses to alternative fuels (§ 22.1-146)
    - Permits the Board of Education to loan money or make loan interest rate subsidy payments from the Literary Fund to the school boards for the purposes of equipping school buses for alternative fuel conversions and for construction of school bus fueling facilities for supplying compressed natural gas or other alternative fuels.
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# Financial Incentives: Loan Access

- Virginia Alternative Fuels Revolving Fund (§ 33.1-223.3)
    - Fund controlled by the Commissioner of Transportation to assist local governments that convert to alternative fuel systems. Funding could be used for necessary alternative fuel components, the maintenance and repair of alternative fuel components, and the testing and evaluating needed to determine the benefits and savings realized by using such alternative fuels.
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# Financial Incentives: Loan Access

- Loans to install of energy-saving devices (§ 36-55.31:1)
  - Loan program controlled by the VHDA to finance the purchase and installation of insulation, storm windows and doors and solar or other alternative energy sources.



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# Financial Incentives: Income Tax

- Fuel cells and energy efficient appliances (§ 58.1-322)
    - Individuals may receive an income tax credit of up to \$500 per year for 20% of the cost of certain energy efficient appliances and fuel cells.
  - Clean fuel vehicle job creation tax credit (§ 58.1-439.1)
    - Corporations may claim a credit against income taxes equal to \$700 for each job created in the manufacture of vehicles or components for vehicles designed to operate on a clean special fuel.
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# Financial Incentives: Income Tax

- Energy Income Tax Credit (§ 58.1-331)
    - Corporations allowed a credit against corporate income tax for 20% of expenditures for renewable energy source expenditures.
  - Energy Income Tax Credit (§ 58.1-431)
    - Individuals allowed a credit against individual income tax for 20% of expenditures for renewable energy source expenditures.
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# Financial Incentives: Income Tax

- Virginia coal employment and production incentive tax credit (§ 58.1-433.1)
    - Electricity generator and coal producer may allocate a credit towards corporate income taxes of \$3 per ton of coal purchased and consumed if such coal was mined in Virginia.
  - Coalfield employment enhancement tax credit (§ 58.1-439.2)
    - Producers of coal or coalbed methane mined in the Commonwealth shall be allowed a credit against income taxes in certain circumstances calculated on a per ton or per million BTUs.
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# Financial Incentives: Income Tax

- Tax credit for clean-fuel vehicles and certain refueling property (§ 58.1-438.1)
    - Any person may receive a credit equal to 10% of the allowable depreciation deduction against the income taxes for the purchase of clean-fuel vehicles principally garaged in Virginia, certain refueling property placed in service in Virginia, and a credit equal to 20% of the allowable depreciation deduction for certain equipment used for vehicle emissions testing.
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# Financial Incentives: Income Tax

- Biodiesel and green diesel fuels producers tax credit (§ 58.1-439.12:02).
    - Taxpayers who are biodiesel fuel or green diesel fuel producers may claim a credit against income taxes in an amount equal to \$0.01 per gallon of biodiesel or green diesel fuels produced by such taxpayer.
  - Tax credit for purchase of waste motor oil burning equipment (§ 58.1-439.10).
    - Businesses that accept waste motor oil from the public are allowed a credit against income taxes in an amount equal to 50% of the purchase price paid during the taxable year for equipment used exclusively for burning waste motor oil at the business facility.
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# Financial Incentives: Sales & Use Tax

- Energy and water efficient appliances (§ 58.1-609.1)
    - Sales and use taxes shall not apply during a 4-day tax holiday to qualified products designated as Energy Star or WaterSense with a sales price of \$2,500 or less per product purchased for noncommercial home or personal use.
  
  - Multifuel heating stoves (§ 58.1-609.10)
    - Sales and use taxes shall not apply to multifuel heating stoves capable of burning a wide variety of alternative fuels, such as shelled corn, wood pellets, cherry pits, and olive pits when used for heating an individual purchaser's residence.
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# Financial Incentives: Property Tax

- Energy-efficient buildings (§ 58.1-3221.2)
    - Any locality may levy a tax on the value of qualified energy efficient buildings at a lower rate from that of tax levied on other real property.
  - Certified solar energy and recycling equipment (§ 58.1-3661)
    - Any locality may levy a tax on the value of qualified solar energy and recycling equipment at a lower rate than the tax levied on other real or personal property.
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# Financial Incentives: Property Tax

- Generating and cogenerating equipment used for energy conversion (§ 58.1-3662).
    - Any locality may exempt or partially exempt from tangible personal property taxes the value of equipment that is converted from oil or natural gas to coal or to wood, wood bark, wood residue, or to any other alternate energy source for manufacturing, and any cogenerating equipment installed for use in manufacturing.
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# Regulatory Incentives: Streamlining

- Expedited permitting process for qualified energy generators. (§ 10.1-1308.1).
    - Small electricity generators using renewable biomass as a feedstock at a commercial facility may participate in an expedited process to obtain the necessary permits from the Air Pollution Control Board.
  - Permit modifications for alternative fuels or raw materials. (§ 10.1-1322.4).
    - No additional permit modifications may be required by the Air Pollution Control Board for the use of an alternative fuel if the owner demonstrates that the emissions shall be decreased.
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# Regulatory Incentives: Streamlining

- Exemption from automobile emissions inspection (§ 46.2-1178)
    - Exempts hybrid vehicles that obtain a rating from the EPA of at least 50 mpg from mandatory emissions inspection programs.
  - Exemption for small power producers (§ 56-232)
    - Exempts small power producers using renewable or non-depletable primary energy sources and not exceeding a rated capacity of 7.5 megawatts from regulation by the SCC.
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# Regulatory Incentives: Streamlining

- Clean Coal Projects (§ 67-401)
    - The State Air Pollution Control Board must adopt permit processes that facilitate the construction of clean coal projects in the Commonwealth by and give priority to processing permit applications for clean coal projects.
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# Regulatory Incentives: Rewards

- Renewable Portfolio Standards (§ 56-585.2)
    - Provides a performance incentive for utilities that meet goals for generating electricity from renewable sources. The goals are phased in increasingly over 15 years reaching 12% of the electricity sold in 2022.
  - Enhanced Rate of Return (§ 56-585.1)
    - Enhanced rate of return available to public utilities for nuclear, advanced coal, and renewable powered generation facilities.
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# Regulatory Incentives: Rewards

- Natural Gas Conservation and Ratemaking Efficiency Act (§ 56-600 et seq.)
    - Allows any natural gas utility to file a conservation and ratemaking efficiency plan and requires the SCC to permit recovery of conservation and efficiency costs through regulated rates with a return thereon without a resulting reduction in profit. Utilities have the opportunity receive a bonus incentive of up to 15% share of the economic benefits created by the conservation and energy efficiency programs.
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# Deliberative and Administrative Bodies

- Southern States Energy Board (§ 2.2-5600 et seq.)
    - Regional entity comprised of 16 states and 2 territories with a mission to achieve “the proper employment and conservation of energy and employment of energy-related facilities, materials, and products, within the context of a responsible regard for the environment. . .”
  - Coal and Energy Commission (§ 30-188 et seq.)
    - Legislative commission that generally studies all aspects of coal as an energy resource and endeavors to stimulate, encourage, promote, and assist in the development of renewable and alternative energy resources other than petroleum.
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# Deliberative and Administrative Bodies

- Commission on Electric Utility Regulation (§ 30-201).
    - Formerly the Commission on Electric Utility Restructuring, the legislative commission will monitor the SCC's implementation of the Virginia Electric Utility Regulation Act.
  - Commission on Energy and Environment (§ 30-201)
    - A legislative commission established to oversee and implement energy policy in Virginia.
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# Deliberative and Administrative Bodies

- Governor's Commission on Climate Change (Executive Order 59)
    - A 40+ member commission tasked to: (i) inventory the amount of and contributors to Virginia's greenhouse gas emissions, and projections through 2025; (ii) evaluate expected impacts of climate change on Virginia's natural resources, the health of its citizens, and the economy, including the industries of agriculture, forestry, tourism, and insurance; (iii) identify what Virginia needs to do to prepare for the likely consequences of climate change; (iv) identify the actions (beyond those identified in the Energy Plan) that need to be taken to achieve the 30% reduction goal, and (v) identify climate change approaches being pursued by other states, regions and the federal government.
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## Deliberative and Administrative Bodies

- Virginia Center for Coal and Energy Research (§ 23-135.7:1 et seq.)
    - A study, research, information and resource facility for the expansion of knowledge pertaining to coal and energy research and development.
  - Virginia Coastal Energy Research Consortium (§ 67-600 et seq.)
    - A study, research, and information resource on coastal energy issues including wave or tidal action, currents, offshore winds, thermal differences, and methane hydrates.
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# Deliberative and Administrative Bodies

- Division of Energy (§ 45.1-390)
    - Division of DMME with the strategic objectives to:
      - (i) increase the use of proven energy conservation practices;
      - (ii) foster growth of emerging and sustainable energy industries and infrastructure;
      - (iii) identify applications of new and innovative energy technologies;
      - (iv) advance partnerships that will enable energy efficiency and economic development opportunities;
      - (v) improve the energy efficiency of commercial, institutional, and residential buildings; and
      - (vi) provide energy education and outreach.
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# Deliberative and Administrative Bodies

- Solar Energy Center (§ 45-391)
    - The Center acts as a clearinghouse to gather and disseminate information on solar energy; coordinates efforts and programs on solar energy with other governmental entities; promotes cooperation among and between Virginia business, industry, agriculture and the public related to the use of solar energy; develops public education programs on solar energy for use; and assists to formulate policies on the utilization of solar energy.
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# Promotion and Education

- Education for electric energy consumers (§ 56-592 et seq.)
    - The SCC provides a consumer education program for retail customers with information regarding conservation, efficiency, demand-side management, demand response, and renewables.
  - Support for agricultural feedstocks (§ 3.1-14.5)
    - VDACS must develop a program to encourage and assist the development of bioenergy feedstock.
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# Promotion and Education

- Signs and markings on school buses using alternative fuels (§ 46.2-1089.1)
    - The State Board of Education may provide by regulation for the display of appropriate signs or other markings on school buses using alternative fuels. Such signs or markings shall conspicuously identify the vehicle as an alternatively fueled vehicle and indicate the type of alternative fuel used.
  - Special Clean Fuel Vehicle License Plates (§ 46.2-749.3)
    - The owners of a alternatively fueled motor vehicle may utilize special license plates that allow use of HOV lanes.
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# Promotion and Education

- Virginia Solar Easements Act (§ 55-352 et seq.)
    - Promotes the use and development of solar energy by establishing uniform criteria for easements that protect exposure of solar energy equipment, facilities, and devices.
  - Subdivision Ordinance (§ 15.2-2242)
    - Encourages solar heating and cooling devices in new subdivisions by authorizing local governments to include provisions in subdivision ordinances for establishing and maintaining access to solar power when requested by the subdivider.
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# Policy Declarations

- Energy Policy (§ 67-100 et seq.)
    - Sets forth specific policies and objectives of the Commonwealth.
  - Energy Plan (§ 67-200 et seq.)
    - Required the development of a ten-year Energy Plan to meet the policies and objectives. The plan includes recommendations for action and will be updated in 2010 and every four years thereafter.
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# Policy Declarations

- Conservation, Energy Efficiency and Demand Response (Chapter 933, 2007)
    - The Commonwealth shall have a stated goal of reducing the consumption of electric energy by 10% by the year 2022. The State Corporation Commission conducted a proceeding to study this goal and make recommendations for its achievement. Its report was presented to the Governor and General Assembly on December 14, 2007.
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# Policy Declarations

- Offshore natural gas and wind resources (§ 67-300)
    - Support of federal efforts to explore natural gas resources and offshore wind feasibility.
  - Biodiesel Fuel (§ 67-500 et seq.)
    - Requires the Commonwealth Transportation Board to encourage the use of biodiesel and other alternative fuels.
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# Policy Declarations

- Motor Vehicle Fuel Efficiency Standards (§ 67-500 et seq.)
    - Supports federal action to increase the CAFE standards from the current standard by promoting performance-based tax credits for advanced technology, fuel-efficient vehicles to facilitate the introduction and purchase of such vehicles; and market incentives and education programs to build demand for high-efficiency, cleaner vehicles, including tax incentives for highly efficient vehicles.
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