

Renewable Energy in Virginia

Summary

Virginia has taken an “all-of-the-above” approach to energy policy, supporting the generation of electricity from nuclear, natural gas, coal, and renewable energy. Virginia’s renewable portfolio goal aims to increase the state’s use of renewable energy to 15% by 2025, but unlike renewable targets in many other states, the goal is not binding and allows existing facilities to count toward compliance. Developers and regulators are now directing attention to Virginia’s Outer Continental Shelf for the development of offshore wind projects, which could substantially increase the role of renewable energy in the state and power close to one million homes.¹⁴

Installed Renewable Energy Capacity, 2012			
Wind Power	0 MW	Marine Power	0 MW
Solar Photovoltaic	10.5 MW	Biomass & Waste	726 MW
Solar Thermal Electric	0 MW	Ethanol	65 mGy
Geothermal Power	0 MW	Biodiesel	16 mGy
Hydropower	832 MW	Totals	1,569 MW; 81 mGy

Sources: See User’s Guide for details

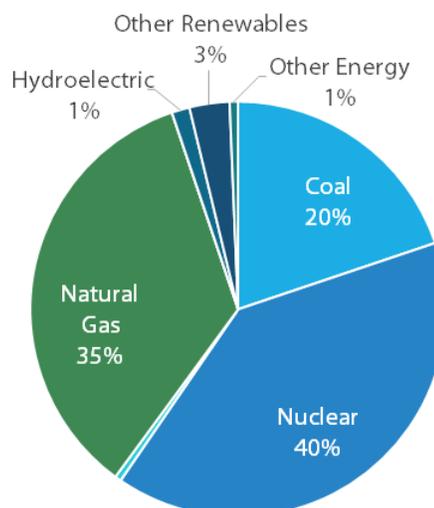
Market Spotlight

- ▶ An existing coal-powered facility in Altavista was successfully converted into a 51 MW 100% biomass-powered plant in July 2013. The plant uses waste wood from nearby timber operations as feedstock. A 50 MW biomass project in South Boston was also brought online in 2013. The project is cooled in a closed loop system using water reclaimed from a nearby wastewater treatment facility.
- ▶ In September 2013, a Virginian utility won the U.S. Department of the Interior’s second competitive lease sale for renewable energy in federal waters. The area auctioned – more than 23 miles off Virginia Beach – could support 2 GW of offshore wind. The project needs to obtain a number of federal approvals before it can begin construction.
- ▶ The Virginia Department of Mines, Minerals, and Energy plans to build a grid-connected, 12 MW offshore wind test facility off the state’s coast. In December 2013, the U.S. Bureau of Ocean Energy Management determined that there is no other competing interest in the area where the project would be built, but it still needs to approve the installation.
- ▶ The Norfolk Navy Base is the site of a ten acre, 2 MW solar power facility that can power up to 200 homes. When it was installed in late 2012, the project was the largest PV facility in Virginia.

Economic Development

Employment	2011	
Green Goods & Services Jobs	107,773	
Investment (Grossed-up)	2011	2012
Asset Finance	\$235m	\$16.5m
Venture Capital & Private Equity	\$23.2m	\$3.8m

Sources: Bureau of Labor Statistics (BLS); Bloomberg New Energy Finance (BNEF). See User’s Guide for details.



Electricity Generation, 2012 (EIA)

¹⁴ <http://www.doi.gov/news/pressreleases/interior-holds-first-ever-com-waters.cfm>

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State Policy

Renewable Portfolio Goal	<ul style="list-style-type: none"> ▶ 15% of base year (2007) sales by 2025 (voluntary) ▶ Investor-owned utilities (IOUs) ▶ Includes existing and new solar, wind, geothermal, hydropower, ocean, waste, and biomass power ▶ Up to 25% of goal may be met through research and development activity expenses ▶ Electricity must be generated in state or in interconnection region of the regional transmission utility ▶ Onshore wind and solar receive double credit; offshore wind receives triple credit
Net Metering	<ul style="list-style-type: none"> ▶ IOUs, electric cooperatives ▶ System capacity limit of 500 kW for non-residential and 20 kW for residential (residential systems greater than 10 kW must pay monthly standby charge) ▶ Aggregate capacity limit of 1% of utility's adjusted state peak-load for previous year ▶ Net excess generation credited to customer's next bill at retail rate; customer may opt to continue rolling it over or receive payment at avoided cost rate after 12 months ▶ Customer owns renewable energy credits (RECs)
Interconnection Standards	<ul style="list-style-type: none"> ▶ All utilities ▶ System capacity limit of 20 MW ▶ Rules differ for net metered and non-net metered systems and by size
Tax Incentives	<p>Green Jobs Tax Credit:</p> <ul style="list-style-type: none"> ▶ \$500 income tax credit for every green job created with an annual salary of at least \$50,000/year, for five years ▶ Maximum incentive of \$175,000 <p>Personal Tax Credit for Home Improvements: For 10%-30% of the cost of energy efficiency improvements, including the installation of renewable energy systems</p> <p>Biodiesel Production Tax Credit:</p> <ul style="list-style-type: none"> ▶ Equal to \$0.01/gallon of biodiesel or green diesel fuels produced; to not exceed \$5,000 ▶ For producers that generate up to 2 mGy <p>Alternative Fuel Job Creation Tax Credit:</p> <ul style="list-style-type: none"> ▶ Job creation tax credit of up to \$700/full-time employee for alternative fuel related jobs
Loans and Grants	<p>Voluntary Solar Resource Development Fund:</p> <ul style="list-style-type: none"> ▶ Revolving loan fund fueled by donations from customers of IOUs ▶ Loans made available for eligible solar energy projects <p>Energy Project and Equipment Financing:</p> <ul style="list-style-type: none"> ▶ Loans to counties, cities, towns, and authorities for renewable energy installations ▶ Low-interest loans or credit enhancement <p>Clean Energy Manufacturing Incentive Grants:</p> <ul style="list-style-type: none"> ▶ Up to \$0.75/watt for the production of renewable energy equipment sold in a year ▶ Manufacturer must meet investment and job creation thresholds <p>Biofuels Production Grants:</p> <ul style="list-style-type: none"> ▶ \$0.125/gallon of neat advanced biofuel sold ▶ \$0.10/gallon of non-advanced neat biofuels sold in state <p>Agriculture and Forestry Biofuel Production Grants:</p> <ul style="list-style-type: none"> ▶ For the construction of biofuel production facilities ▶ Individual grants may not exceed \$250,000 or 25% of qualified capital expenditures
More Info	<ul style="list-style-type: none"> ▶ DSIRE Database: www.dsireusa.org/incentives/index.cfm?state=VA ▶ Division of Energy: www.dmme.virginia.gov/DE/DeLandingPage.shtml ▶ State Corporation Commission (RPS): www.scc.virginia.gov/pue/renew.aspx