

REPOWER VIRGINIA

Efficiency First for a Clean Energy Future





REPOWER VIRGINIA

Virginia is blessed with a wealth of natural resources and scenic landscapes – from the Eastern shore to the Blue Ridge. We are also fortunate to have a diverse economy based on agriculture, technology, manufacturing, tourism and other sectors.

We are all vested in preserving these assets for future generations.

That's why it is vitally important that we act now to move towards a clean energy future that provides affordable electricity, creates "green-collar" jobs, protects the environment and public health, and reduces global warming pollution.

Energy experts agree that by far the cleanest, cheapest and quickest way to produce more energy is through efficiency – everything from compact fluorescent light bulbs to "smart grid" transmission lines. The Governor's Commission on Climate Change recommends that Virginia meet 19% of energy demand by 2025 through efficiency – a goal supported by independent analysis. The panel also calls for increasing renewable energy from sources like wind and solar, and increasing conservation.

But Dominion Virginia Power and Old Dominion Electric Cooperative are asking Virginians to spend more than \$8 billion for old-style, coal-fired power plants in Wise and Surry counties. The facilities will pollute our air and water, increase the devastating practice of mountaintop removal coal mining, lead to higher electric bills for customers, and release millions of tons of global warming pollution every year – for the next 50 or 60 years.

The Wise Energy for Virginia Coalition is fighting in court to stop Dominion's power plant in Wise County. In the meantime, tens of thousands of your fellow Virginians have signed up to support clean energy.

Now it's your turn.

We're calling on all citizens of the Commonwealth – especially our leaders – to support investments in energy efficiency and responsible renewable energy as our first and best sources.

EFFICIENCY FIRST

Virginia utilities rank 45th in the country in the percentage of revenues they spend on efficiency – a total of just \$84,000 across the state in 2006.¹ In comparison, utilities in Alabama and Mississippi spent more than \$400,000, and North Carolina energy providers spent \$3.8 million.²

In September 2008, the American Council for an Energy Efficient Economy (ACEEE), an independent research firm, released a report examining Virginia's efficiency opportunities. ACEEE found that:

- ▶ Aggressively pursuing all cost-effective efficiency measures available today would supply 31% of our energy needs in 2025;³
- ▶ A less aggressive approach would still supply 19% of our energy needs by 2025.⁴ This would save \$15 billion on our electric bills – all without building a single new power plant.⁵

Efficiency is by far the cheapest way to generate additional electricity for Virginia's growing economy – roughly 3 cents per kilowatt-hour,⁶ compared to more than 10 cents per kWh for coal-fired power.⁷ Energy efficiency programs typically cost 2 to 5 times less than building new coal plants.⁸

Getting smarter about the way we use energy will save families money and create jobs right here in Virginia.

Energy efficiency includes “Energy Star” appliances, better insulation and high-efficiency heating and cooling systems for schools, factories, homes and offices. It means enjoying the same high quality of life we've come to expect while using *less* electricity.





JOBS AND THE ECONOMY

Investing in clean energy will cut electric bills for homeowners, as well as for commercial and industrial users, helping them compete in the global economy. It can create thousands of “green-collar” jobs for Virginia, including jobs to install and operate renewable energy generators and whole industries to support residential and commercial building renovation.

- ▶ A private firm in 2009 analyzed the economic impact of using energy efficiency instead of building the Wise County plant and found that, beginning as early as 2012, the boost to Virginia’s economy would be no less than \$228 million annually and no fewer than 2,700 permanent jobs.⁹
- ▶ A 2008 report says \$100 billion investment nationwide in green jobs and clean energy could stimulate the creation of 2 million jobs – 56,000 of them in Virginia.¹⁰
- ▶ ACEEE conservatively estimates that efficiency measures would create 9,820 jobs, and yield \$11 billion in new investments in Virginia’s economy.¹¹

Coal is heading in the other direction. The long-term trend for fossil fuel prices is unstable but generally rising. Appalachian coal went from \$40 per ton in early 2007 to \$140 a ton in September 2008, to roughly \$100 a ton at the end of 2008¹² – and that shows up on our monthly electric bills. Dominion Power raised rates by 18.3% last year to cover soaring costs of fossil fuel.¹³

The Virginia State Corporation Commission staff determined that construction of Dominion’s Wise County coal plant will bring a *loss* of about 1,500 jobs in Dominion’s service territory. Higher electric bills to pay for the \$1.8 billion plant mean less income to spend on goods and services, with negative impacts for small businesses.¹⁴

A COAL PLANT IN WISE COUNTY



(c) Kent Kessinger, Courtesy of Appalachian Voices

The coal-fired power plant Dominion Power is building in Wise County is a bad deal for Virginia. Here's why.

- ▶ Costs have ballooned. Dominion announced its plans in May 2006, estimating the cost at \$800 million.¹⁵ Just two years later, the cost had more than doubled to \$1.8 billion.
- ▶ Our rates will go up. Dominion will collect a 12% return from ratepayers to pay for building the plant. This is in addition to the 18% increase it received last year to cover rising fossil fuel costs.
- ▶ Dominion does nothing to cut the plant's global warming pollution. The State Corporation Commission determined that the utility has not earmarked one penny to address the plant's annual output of 5.37 million tons of carbon dioxide pollution – the main contributor to global warming.¹⁶
- ▶ It will only get more expensive. Dominion will almost certainly need to pay for cutting carbon emissions at the plant in the near future. The estimated \$100 million or more that it would cost annually to do so will also be passed on to its customers.¹⁷

Dominion and others continue to mislabel the Wise County plant as a “clean coal” facility. Nothing could be further from the truth.

- ▶ In 2007, experts reported that technology to capture and store carbon pollution will only be economically feasible for the most efficient coal-burning plants, and said the kind of design that Dominion is using is inefficient for this purpose.¹⁸
- ▶ Coal-fired power plants rank among the worst threats to public health. In Virginia, power-plant pollution contributes to 1,000 deaths, 120 lung cancer deaths, 1,421 heart attacks and approximately 24,000 asthma attacks each year.¹⁹
- ▶ The mining and trucking of coal in Wise County coats nearby homes and businesses with a film of black dust, which residents breathe in all day, every day.

Although Dominion has started construction on the plant, the outcome of the project is far from certain. Clean energy advocates are suing to stop the plant; similar lawsuits in Georgia, North Carolina, Kansas and Utah have set strong precedents against bringing more coal plants online. If the Wise County litigation succeeds, the Commonwealth will have another opportunity to change course and invest in clean energy.



(c) Taylor Barnhill, Flight courtesy of Southwings

MOUNTAINTOP REMOVAL COAL MINING



Increasingly practiced in Southwest Virginia, mountaintop removal coal mining blasts the tops off mountains to expose the coal. The dirt and rubble are dumped in nearby valleys, polluting and sometimes burying miles and miles of streams. It devastates the environment and communities.

Mountains don't grow back.

- ▶ Mountaintop removal has destroyed 29 Virginia mountains so far.²⁰
- ▶ Toxic mining waste is dumped into valleys, burying and damaging headwater streams that supply drinking water for people downstream.
- ▶ Fewer workers are needed for mountaintop removal than for underground mining. Since 1980, income in Wise County has declined from 96% to 69% of the national average, and there has been a 62% decline in mining industry jobs – despite an increase in coal production during the same timeframe.²¹
- ▶ Southwest Virginia's natural and cultural resources – including vast tracts of national forest and a rich musical heritage – draw thousands of visitors every year. Mountaintop removal threatens the area's tourism businesses, which bring in more than \$33 million a year in expenditures, payroll, and state and local tax revenues.²²

No coal that is mined by mountaintop removal can be considered “clean coal.”

RENEWABLE ENERGY

Renewable sources of energy, like wind and solar, can provide Virginia with clean energy while protecting consumers from the price fluctuations of fossil fuels and creating economic development opportunities for the Commonwealth. Renewables are proven technologies for generating electricity that don't produce global warming emissions or toxic air pollution, and avoid the serious environmental impacts associated with extracting coal and other traditional fuels.

- ▶ Experts predict that the cost of controlling carbon pollution will run at least \$20 or \$30 per ton.²³ Dominion estimates that its facilities (excluding Wise County) currently emit 66 million tons of carbon annually.²⁴ Thus, the cost to Dominion's customers could easily total \$2 billion annually—more than the cost of building one Wise County coal plant every year.
- ▶ Wind and solar energy don't emit global warming pollution, yet only 2% of Virginia's energy currently comes from renewable sources.²⁵
- ▶ Virginia is windy enough to support appropriately sited utility-scale wind farms.²⁶ Ocean winds off our coast hold even more potential, with an area the size of Virginia Beach able to supply about 20% of the state's annual electricity demand.²⁷
- ▶ Virginia also has the potential to meet up to 19% of electricity demand each year through solar panels installed on homes and businesses, and provide extra power during times of peak energy use, such as the hottest summer days. According to ACEEE, existing solar-panel technology costs less than nuclear power.²⁸





CLIMATE CHANGE

With over 3,000 miles of tidal shoreline, Virginia's coast from Alexandria to Norfolk is extremely vulnerable to increased storm surges and rising seas; the Hampton Roads area is second only to New Orleans in vulnerability to sea level rise.²⁹ A progressively warmer planet has potentially dire consequences for the state's agriculture sector, forest and water resources, wildlife and public health.

A panel of eleven of the most senior retired U.S. admirals and generals released a report in 2007 detailing how climate change presents a serious national security threat that could affect Americans at home, impact U.S. military operations, and heighten global tensions.³⁰

Virginia Governor Tim Kaine took an important step in convening a special Commission on Climate Change, which issued its final report in December. After receiving input from a wide variety of stakeholders, the Commission concluded:

- ▶ Virginia should reduce global warming pollution by increasing energy efficiency and conservation, and by increasing the proportion of energy demand met by renewable sources.
- ▶ The General Assembly should enact legislation mandating that Virginia meet 19% of its projected electricity needs by 2025 through efficiency.

It is time to make these recommendations reality by investing in low-cost, common-sense energy efficiency and clean energy solutions that will curb global warming emissions while stabilizing electricity costs for consumers.

HELP REPOWER VIRGINIA'S FUTURE

Virginia is at a crossroads. We need to make the right decisions now to set us on a course toward a cleaner, safer, healthier energy future.

The Wise Energy for Virginia Coalition is leading the charge to stop Dominion's coal-fired power plant in Wise County. The coalition is also reaching out to communities across the Commonwealth to educate citizens about these critical issues.

Already, some 45,000 Virginians have signed petitions in support of clean energy instead of more coal energy.

Building political will starts with communities, faith groups, college students, civic organizations, businesses, and individuals who believe we must act now to secure a clean energy future that will address climate change, boost our economy and create thousands of green jobs.

It's time to move forward to a clean energy future.



ENDNOTES

- ¹ American Council for an Energy Efficient Economy, “The 2008 State Energy Efficiency Scorecard,” ACEEE Report No. E086; at 8; Oct. 2008. <http://www.aceee.org/pubs/e086.htm>
- ² *Ibid.*
- ³ American Council for an Energy Efficient Economy, “Energizing Virginia: Efficiency First;” ACEEE Report No. EO85; Sep. 19, 2008. <http://www.aceee.org/pubs/e085.htm>
- ⁴ *Ibid.*
- ⁵ *Ibid.*
- ⁶ *Ibid.*
- ⁷ *Ibid.*
- ⁸ *In re: Va. Elec. and Power Co.*, PUE-2007-00066, Direct Examination of Philip H. Mosenthal, Optimal Energy, Inc., on behalf of Southern Environmental Law Center, *et al.*, at 24; Nov. 2, 2007.
- ⁹ Abt Associates, Inc., “Assessing the Economic Impact of Dominion Power’s Coal-Fired Power Plant in Wise County, Virginia;” January 2009.
- ¹⁰ Center for American Progress & Political Economy Research Institute, “Green Economic Recovery Program: Impact on Virginia;” 2008. http://images2.americanprogress.org/CAP/2008/09/peri_va.pdf
- ¹¹ See endnote 3.
- ¹² U.S. Department of Energy, Energy Information Administration, Average Weekly Coal Commodity Spot Prices. <http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html>
- ¹³ Letter from the Hon. Jim Webb, U.S. Senate, to the Hon. Judith Jagdmann, State Corporation Commission; June 11, 2008. (“My office has heard from many families in Virginia who are concerned regarding this potential rate increase. . . . An 18.3% increase would be the largest one-time rate increase since 1970 for Dominion Virginia Power.”)
- ¹⁴ *In re: Va. Elec. and Power Co.*, PUE-2007-00066, Direct Examination of Mark K. Carsley, Division of Economics and Finance, State Corporation Commission; Nov. 28, 2007.
- ¹⁵ *The Roanoke Times*, “Dominion Wants to Put \$800 Million Plant in Wise Co.” by Ray Reed; May 12, 2006.
- ¹⁶ *In re: Va. Elec. and Power Co.*, PUE-2007-00066, Final Order from the Virginia State Corporation Commission, at 16, 20-21; March 31, 2008.
- ¹⁷ *In re: Va. Elec. and Power Co.*, PUE-2007-00066, Direct Examination of Scott Norwood, Office of the Attorney General, Division of Consumer Counsel, Case No. PUE-2007-00066; Virginia State Corporation Commission, Exhibit No. 27P, at 17-18; Nov. 2, 2007. Also *In re: Va. Elec. and Power Co.*, PUE-2007-00066, Direct Examination of David A. Schlissel, Synapse Energy Economics, Inc., on behalf of Southern Environmental Law Center, *et al.*, at 43; Nov. 2, 2007.
- ¹⁸ Massachusetts Institute of Technology, “The Future of Coal,” at xi, 19, 36, 96; 2007. <http://web.mit.edu/coal/>
- ¹⁹ Clean Air Task Force, *Dirty Air, Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants*; June 9, 2004.
- ²⁰ Appalachian Voices. Contracted study by Ross Geradeine; 2006. <http://www.ilovemountains.org/resources/#whereismtr>
- ²¹ Income data for 1980 and 2006 Bureau of Economic Analysis <https://www.bea.gov/regional/reis/default.cfm?catable=CA1-3§ion=2>. 1980 employment data are available from the BHA at <http://www.bea.gov/region/docs/reis2006dvd.cfm>; third quarter 2007 employment data are available from the Virginia Employment Commission at <http://www.vawc.virginia.gov>. 1980 coal production data are available from the Virginia Center for Coal and Energy Research at http://www.energy.vt.edu/vept/coal/historical_coal.asp and 2006 coal production data are available from the Energy Information Administration’s 2007 Annual Coal Report, available at http://www.eia.doe.gov/cneaf/coal/page/acr/acr_sum.html.
- ²² Travel Industry Association for the Virginia Tourism Authority, “The Economic Impact of Domestic Travel Expenditures on Virginia Counties 2007;” Sept. 2008.
- ²³ See endnotes 16 and 17.
- ²⁴ Dominion Virginia Power website, “Air Emissions and Environmental Expenditures;” Dec. 10, 2008. <http://www.dom.com/about/environment/report/performance/index.jsp#co2>
- ²⁵ U.S. Department of Energy, “Electric Power and Renewable Energy in Virginia;” <http://apps1.eere.energy.gov/states/electricity.cfm/state=VA#electricity>
- ²⁶ U.S. Department of Energy, “Virginia Resource Map; Jan. 12, 2003. http://www.windpoweringamerica.gov/maps_template.asp?stateab=VA
- ²⁷ Virginia Coastal Energy Research Consortium, “Offshore Wind Power and Marine Biofuels;” presentation to the Virginia Coastal Zone Partners Workshop, Dec. 7, 2007.
- ²⁸ See endnote 3.
- ²⁹ Virginia Commission on Climate Change, Interim Report, at 4; Sep. 10, 2008. http://www.deq.virginia.gov/export/sites/default/info/documents/climate/Interim_Report-Final.pdf
- ³⁰ Military Advisory Board, The CNA Corporation, “National Security and the Threat of Climate Change;” April 2007. <http://securityandclimate.cna.org/report/>



(c) Lynda Richardson
Cover photo (c) Jerry Greer



WiseEnergyForVirginia.org

Southern Appalachian Mountain Stewards
(276) 565-1083

Appalachian Voices
(434) 293-6373

Chesapeake Climate Action Network
(804) 767-8725

Sierra Club
(804) 225-9113

Southern Environmental Law Center
(434) 977-4090

January 2009 • Printed on recycled paper