



# VIRGINIA

## Our Common Agenda

*2014 Environmental Briefing Book*

# PROTECT VIRGINIA'S FUTURE

To protect our future, Virginia Conservation Network has selected four priority issues for the 2014 legislative session:

1. Invest in Clean Water
2. Reform Renewable Energy Laws
3. End Highway Robbery
4. Keep the Ban on Uranium Mining and Milling

Virginians value our lakes, rivers and streams; forests and wilderness areas; clean air and natural areas. We have a duty to be stewards of our environment: to protect, restore and preserve our heritage so we can pass it on to our children and grandchildren.

2013 produced a few notable environmental successes including keeping the 30 year ban on uranium mining. In addition, lawmakers can point to achievements in land protection, clean water, fisheries and clean energy.

Lawmakers worked hard to ensure the \$100 million allotted to land preservation via the state's transferable tax credit for donated conservation easements will go to its intended purpose. If the full amount is not claimed in a given year, the remainder will be divided among grant programs.

The General Assembly enacted harvest caps of the atlantic menhaden as required by the Atlantic States Marine Fisheries Council.

Clean energy entrepreneurs got a boost this year with the passage of a bill to allow aggregated net metering on farms and bills to allow up to 50 MW of renewable energy financed through third-party power purchase agreements.

For the first time the Senate Commerce and Labor Committee and both major utilities agreed on a zero-carbon electricity standard.

This document is organized around the following three core principles: Healthy Rivers, Clean Energy and Green Communities.

Taken together, the policies advocated for in this agenda will lay the foundation for a sustainable future for Virginia.



VIRGINIA  
CONSERVATION  
NETWORK



**All Virginians benefit from the protection of our streams, rivers and wetlands. Clean water is vital for a healthy environment and thriving communities.**

Healthy rivers help provide safe drinking water and allow people to enjoy the benefits of water based recreation. Additionally, clean water is imperative to the protection of wildlife and ecosystems, including commercial fisheries.

Providing sound policies that protect and restore our streams and rivers is vital.

**The Virginia General Assembly should:**

- **Maintain the moratorium on uranium mining and milling.**
- **Allocate at least fifty million dollars per year to stormwater pollution reduction strategies.**
- **Fully fund the agricultural cost-share program and technical assistance at a level sufficient to achieve nutrient pollution reductions.**
- **Remove the January 1, 2015 sunset from Virginia state code to ensure compliance with the Atlantic States Marine Fisheries Commission coast-wide management plan for menhaden.**
- **Enact legislation focused on preserving the public's constitutional rights to fully use and enjoy the waters of Virginia for boating, fishing, hunting, recreation, and commerce, while recognizing legitimate claims of private ownership of river beds.**
- **Ensure Virginia's nutrient credit trading regulations establish baselines for credit generation, meet local water quality requirements, include protocols for public participation and establish appropriate inspection and enforcement.**

# Healthy Rivers



# Uranium Mining and Milling

For more than 30 years, Virginia has maintained a statutory ban prohibiting uranium mining. One company, Virginia Uranium, Inc. (VUI), is asking lawmakers to repeal that longstanding ban. VUI's efforts have focused on a uranium deposit known as the Coles Hill site, which is north of Danville, in Pittsylvania County. The Coles Hill deposit is in the Roanoke River watershed, which provides drinking water for more than 1.1 million people, including up to one-third of the water supply for Norfolk, Virginia Beach, and Chesapeake.<sup>1</sup>

Last year, VUI launched a massive lobbying campaign, and the company was ranked as the #1 top lobbying spender in the General Assembly, according to data compiled by the Virginia Public Access Project. In fact, VUI spent nearly as much as the #2 and #3 lobbying spenders, Dominion and Altria, combined.<sup>2</sup>

Despite this unprecedented and intensive lobbying effort, a groundswell of opposition to uranium mining during the 2013 General Assem-

bly Session succeeded in keeping the ban. Support for the ban came from environmental nonprofits, public health groups, businesses in southern Virginia, and dozens of local governments throughout the state.

VUI, however, has made clear its intentions to revive the issue in the upcoming 2014 legislative session.

**The Peer-Reviewed Science.** Uranium mining is one of the most carefully studied environmental issues in recent Virginia history, and the moratorium remains on the books precisely because peer-reviewed science has shed so much light on the issue. Most notably, in 2012, the National Academy of Sciences (NAS) completed a multi-year, \$1.4 million investigation of the scientific, technical, environmental, human health and safety, and regulatory aspects of uranium mining and processing in Virginia.<sup>3</sup>

The NAS report validated the core concerns of the public health and environmental communities. The NAS

found, for example, that “tailings disposal sites represent significant potential sources of contamination for thousands of years, and the long-term risks remain poorly defined. Although significant improvements have been made in recent years ... limited data exist to confirm the long-term effectiveness of uranium tailings management facilities that have been designed and constructed according to modern best practices.”<sup>4</sup>

In other words, the NAS concluded that there are scientific and technical limits on our ability to manage the radioactive waste from uranium mining, milling, and waste disposal processes—even if the most stringent regulations were in place. That should be the end of the matter. As Virginia Uranium, Inc. wrote in March 2011, while the NAS's research was still in progress: “We should all have full faith and confidence in the Academy to

deliver an independent, scientifically based assessment, and we all should fully commit to abiding by its findings.”<sup>5</sup>

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**To date, more than 90 governmental organizations—cities, counties, towns, and regional councils of government in Virginia and North Carolina—have passed resolutions in support of the ban.**

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**Concerns About Public Health.** According to the NAS study, waste from mining and milling processes, if not controlled adequately, can contaminate the local environment by seeping into water sources, which in turn can lead to a risk of cancer from drinking water.<sup>6</sup> A socio-economic analysis commissioned by the Virginia Coal and Energy Commission estimated that there could be an additional 3,385 cancer cases over a 75 year period if severe contamination occurs above federal pollution standards, and the cost of treating these cases would be approximately \$1,458,000 per year.<sup>7</sup>

**Concerns About Water Quality.** The City of Virginia Beach retained a global engineering firm, the Michael Baker Corporation, to research whether mining at Coles Hill could contaminate water supplies in the event of a natural disaster, such as a hurricane. The Baker report concluded that a catastrophic failure of a waste disposal facility could lead to radioactivity in the reservoir well

**Uranium Mining and Milling - Learn more at [vcnva.org](http://vcnva.org)**

above the limits imposed by the Safe Water Drinking Act.<sup>8</sup> In dry years, radium levels could remain above Maximum Contaminant Levels under the Act for one-and-a-half-years after a failure.

The concern of Virginia Beach citizens stems in large part from the risk of hurricanes and other extreme weather events. This risk was highlighted in the NAS report: "In a hydrologically active environment such as Virginia, with relatively frequent tropical and convective storms producing intense rainfall, it is questionable whether currently-engineered tailings repositories could be expected to prevent erosion and surface groundwater contamination for 1,000 years"—the maximum levels required by federal regulations.<sup>9</sup>

#### Concerns About the Economy.

The socio-economic analysis commissioned by the Virginia Coal and Energy Commission also found that uranium mining could trigger an \$11 billion loss statewide under a worst-case scenario—nearly twice as much as the hoped-for positive impact under the study's best-case scenario.<sup>10</sup> This projection accounts for losses in property value, manufacturing and school closings, state remediation spending, public health costs, state-wide job loss, and an acute period of distress for the agriculture and tourism sectors.<sup>11</sup>

Agriculture in Danville and Pittsylvania County adds more than \$180 million in value to the local economy each year and supports more than 3,600 jobs.<sup>12</sup> Southside tourism generates more than \$340 million a year and directly supports more than 3,700 jobs.<sup>13</sup> Both of these industries depend on clean water.

**Grassroots Support.** Since 2007, dozens of local governments in Virginia and North Carolina have passed resolutions in support of keeping the ban.

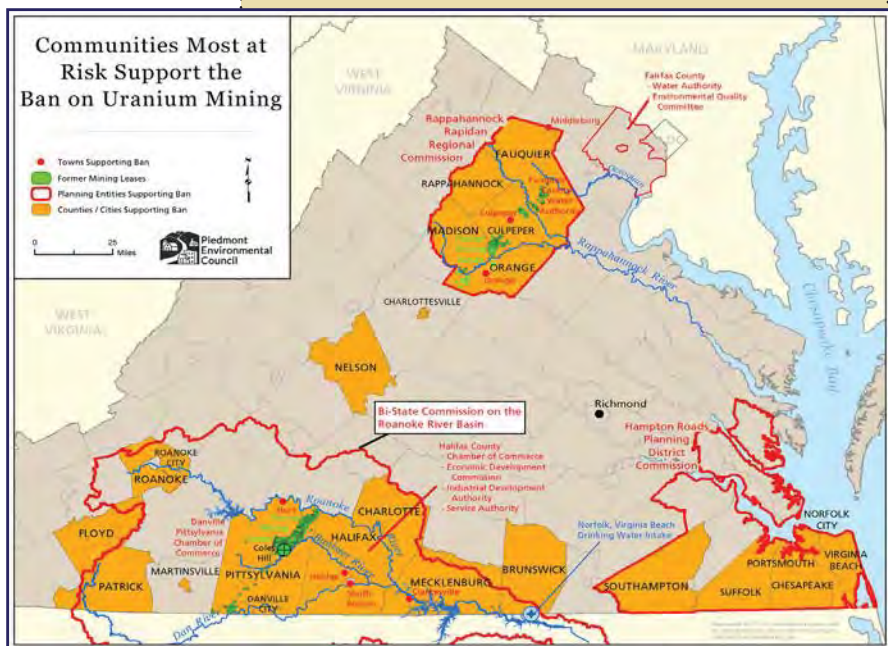
In addition, more than 20,000 citizens have affirmed their support for the ban on uranium mining by signing a petition to the Virginia General Assembly.<sup>14</sup>

Author: Cale Jaffe, Southern Environmental Law Center

## KEEP THE BAN NO URANIUM MINING IN VIRGINIA

For more than 30 years, Virginia has maintained a statutory ban prohibiting uranium mining. Over 20,000 citizens have advocated their support for the ban by signing a petition to the General Assembly.

The General Assembly should continue to heed the findings of the National Academy of Sciences and maintain the moratorium on uranium mining that has, for more than 30 years, protected the lives, livelihoods, and property of Virginians.





# Achieving Water Quality

The Federal Clean Water Act, the Constitution of Virginia, and numerous laws, regulations, and multistate agreements charge our leaders with protecting and restoring the streams and rivers of the commonwealth. Achieving those goals will require a commitment to water quality, and an investment in our future and the future of our children.

Over the years we have made progress, but pollution from urban centers, suburban developments, and agricultural land still amounts to more than our streams and rivers can bare. Virginia already has the basic framework of agencies and programs in place to deliver the needed resources in order to reduce this pollution. Lawmakers in Richmond must now provide the authority and adequate funding.

Great strides have been made in the reduction of nutrient pollution from wastewater treatment plants, thanks to significant investments in the Water Quality

Improvement Fund over the past several budget cycles.<sup>1</sup> To continue the progress of protecting and restoring our streams and rivers, Virginia must now turn its attention to pollution coming from urban centers, suburban developments, and agricultural land.

Urban/suburban stormwater pollution is a growing threat to the health of Virginia's waters because development is outpacing restoration progress. The U.S. Environmental Protection Agency Chesapeake Bay Program Bay Barometer: A Health and Restoration Assessment of the Chesapeake Bay and Watershed in 2009, showed that while progress has been made in reducing pollution, stormwater pollution threatens to offset any gains that are made.<sup>1</sup> In Virginia, pollution from wastewater discharges and agriculture have declined over the past twenty years, but urban stormwater pollution is increasing as urban and suburban land conversion continues.

In the 2013 General Assembly, the Stormwater Local Assistance Fund was established. Monies from this fund will help localities with "the planning, design, and implementation of stormwater best management practices..." throughout 2014.<sup>2</sup> To address the upward trend of stormwater pollution continued investment overtime is necessary. Virginia's stormwater regulations will also determine in large part the future health of its critical water resources. Continued local implementation of these regulations is necessary in order to achieve healthy, clean waterways while accomodating future growth.

Agricultural runoff accounts for much of the nutrient excess entering Virginia's rivers and the Chesapeake Bay. Farming practices including riparian buffers, stream bank fencing to block livestock access, cover crops,

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**"Pollution from urban centers, suburban developments, and agricultural lands still amount to more than our streams and rivers can bare. Lawmakers must provide adequate funding for pollution reduction."**

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continuous no-till, and many others can prevent these pollutants from reaching surface and ground waters. Across the commonwealth, farmers actively seek to adopt these prac-

tices. However, installation costs and adequate technical assistance are major barriers. Given the inherent risks associated with farming (weather, commodity prices, etc.), farmers do not always have a predictable income; one year's profits may cover future years when the farm operates at a loss. Cost-share is the necessary bridge that farmers need so they can do their part to protect Virginia's water resources. These programs must be consistently and adequately funded every year, and not contingent on a budget surplus.

In 2011, the General Assembly passed enabling legislation for a Resource Management Plan program, which was developed as a vehicle to deliver more on-farm conservation practices. If this and other programs are the vehicles for conservation, then cost-share is the fuel. Without it these programs will be ineffective, thereby jeopardizing our ability to meet water quality goals that we have committed to and that are required by law.

**Achieving Water Quality - Learn more at [vcnva.org](http://vcnva.org)**

The costs of not fully addressing these challenges are considerable. Our rivers and bays have played an integral role in the development of Virginia. Today, that critical role continues. Rivers serve as a primary source of drinking water for millions of Virginians, provide a livelihood for watermen, support tourism, they are a source for commercial and industrial facilities and serve as a vital asset to our quality of life and a keystone to our future prosperity.

Author: Jacob Powell, Virginia Conservation Network

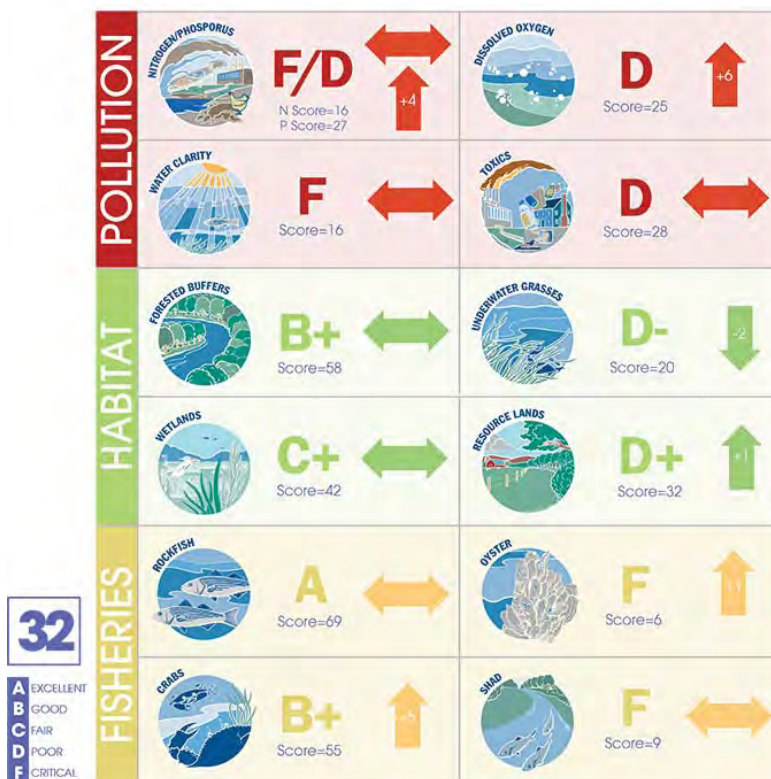
Chart below excerpted from Chesapeake Bay Foundation State of the Bay 2012 Report.

## THE PATH TO HEALTHY RIVERS

When Virginia's tributary rivers are highly productive and in good health as measured by established water quality standards, the result will be clean water, free of impacts from toxic contaminants, and with healthy oxygen levels.

Achieving water quality goals will require a commitment to water quality, and an investment in the future.

### STATE OF THE BAY IN 2012



The General Assembly should commit at least \$50 million dollars per year to stormwater pollution reduction strategies.

The General Assembly should fully fund agricultural cost-share programs and technical assistance at a level sufficient to achieve committed nutrient pollution reductions.

# Atlantic Menhaden

Atlantic menhaden (menhaden) abundance (based upon the total number of menhaden) has declined steadily since a population peak was observed in the early 1980s and recruitment (new fish entering the population) has been relatively low during the same time period.<sup>1</sup> The latest stock assessment indicates that the menhaden population is at its lowest recorded level since 1955.

Since colonial times menhaden have supported one of the largest commercial fisheries on the Atlantic coast. Omega Protein, whose Virginia operations are based in Reedville, Virginia operates an industrial scale fishery, catching menhaden that are eventually “reduced” to fish meal and oil. The Chesapeake Bay is also home to a large component of the menhaden bait fishery which has become increasingly important from North Carolina to New England. The bait fishery supplies commercial fishermen with bait for species

such as blue crab and American lobster. Menhaden are also used widely in recreational fisheries as bait for a variety of sport fish. Most importantly, the species serves as a forage fish to larger fish, marine mammals, and avian predators in the marine and estuarine ecosystems.

Menhaden are managed through a partnership between the Commonwealth of Virginia and the Atlantic States Marine Fisheries Commission. Atlantic States Marine Fisheries Commission is composed of 15 Atlantic coast states and partnering federal agencies that provide technical support and set the coast-wide framework for managing species that migrate along the near-shore waters of the Atlantic Coast. Atlantic States Marine Fisheries Commission seeks to promote responsible stewardship of marine fisheries resources and also, “...serves as a forum for the states to collectively address fisheries issues under the premise that as a group, using a cooperative approach, they can achieve more than they could as individuals. The Commission does not promote a particular state or a particular stakeholder sector.”<sup>2</sup>

As indicated by the peer-reviewed 2010 Atlantic States Marine Fisheries Commission stock assessment,<sup>3</sup> menhaden have been historically overfished along the entire Atlantic coast including the Chesapeake Bay and the population is currently at historic lows. Atlantic States Marine Fisheries Commission has determined that menhaden are currently being overfished, and they have been overfished for at least 32 of the last 54 years resulting in a current menhaden population that is only eight-percent of what it would be if there was no pressure from fishing.

In response to these concerns, in November 2012 Atlantic States Marine Fisheries Commission adopted new reference points on fishing mortality that seek to reduce harvest pressure and increase the menhaden population.

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**“Since colonial times Atlantic menhaden have supported one of the largest commercial fisheries on the Atlantic coast.”**

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Reference points are benchmarks that enable the commission to evaluate and manage the population. After further discussion

and tremendous public comment supporting more conservation minded menhaden management, on December 14, 2012, Atlantic States Marine Fisheries Commission adopted Amendment II, which included significant revisions to the fishery management plan for menhaden. Included in Amendment II were new biological reference points to better manage the population. The reference points include a new minimum threshold (level the population should not go below) defined as 15 percent of the maximum spawning potential and a new target or goal (population level the Atlantic States seek to maintain) defined as 30 percent maximum spawning potential. Currently the population stands at approximately 8 percent of maximum spawning potential.

During the 2013 legislative session, Virginia’s General Assembly passed legislation, subsequently signed by the governor, to bring Virginia into compliance with the coast-wide management plan. One of the main objectives of this legislation was to implement a 20-percent reduction in the overall menhaden catch in order to increase the menhaden population. In addition, the

**Atlantic Menhaden- Learn more at [vcnva.org](http://vcnva.org)**

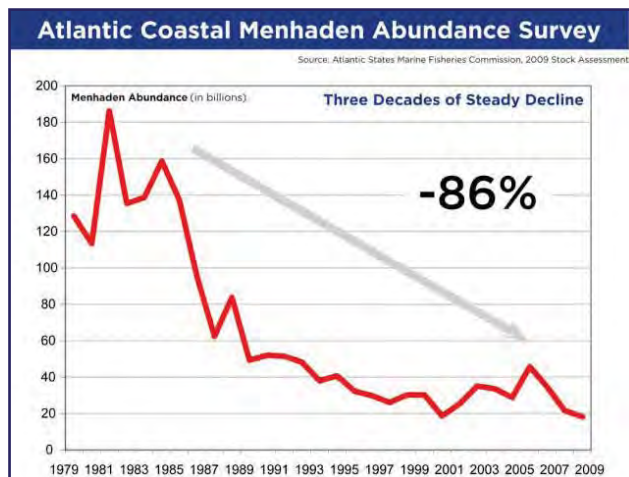


Virginia Marine Resources Commission adopted regulations necessary to better monitor Virginia's menhaden harvest.

Unfortunately, legislation passed during the 2013 session included a January 1, 2015 sunset provision. Inclusion of this provision could leave Virginia out of compliance with the coast-wide management plan if legislation is not passed to remove this sunset or a new management plan is not adopted in order to maintain compliance with the coast-wide management plan.

Author: Chris Moore, Chesapeake Bay Foundation

**Atlantic Menhaden:**  
*The Most Important Fish in the Bay*



## HEALTHY FISHERIES ARE VITAL TO OUR ECONOMY

Menhaden serve as a forage fish to larger fish, marine mammals, and avian predators in the marine and estuarine ecosystems.

Virginia's coastal fisheries are dependent upon a healthy menhaden population to ensure the long-term viability of the fishery and the local and regional economies that are dependent upon them.

Menhaden are managed through a partnership between the Commonwealth of Virginia and the Atlantic States Marine Fisheries Commission.

The General Assembly should remove the January 1, 2015 sunset provision.

# River Access

The bays, rivers, streams and creeks of the commonwealth are held in trust for all Virginians. These waters are conserved for us to be places of solitude, peaceful settings for swimming, fishing, surfing and boating. Unfortunately, public access to these waters has been cast in doubt. With water access being one of the recreation resources in greatest demand throughout the commonwealth, maintaining and improving that access should be a priority.

The Constitution of Virginia supports its citizens' right to use and enjoy its water resources, and it is the commonwealth's policy to protect those waters for the general welfare of the people.<sup>1</sup> To better serve those needs, Virginia surveys its citizens to ascertain the types of outdoor recreation they participate in and associated services they need, informing the Virginia Outdoors Plan. Survey results in 2011 indicated "more than nine in ten [Virginians] consider access to outdoor recreation to be 'very important' or 'important.' Sixty percent of those surveyed also identified "public access to state waters for fishing, swimming, and beach use" to be "most needed."<sup>2</sup>

Virginia also benefits from the tourism dollars, small businesses, and local economies that support outdoor recreation. For example sport-fishing alone supports over 18,000 jobs in Virginia (representing \$642 million in wages) and brings in about \$1.4 billion a year in retail sales.<sup>3</sup> The waters of the state are important to Virginia in many ways, and access to them is critical.

These rights to public access have been cast into doubt in three distinct ways: the right to access public riverbeds for wading, the right to fish public waters, and the right to float upon public waters.

**Access to riverbeds.** Virginia is forbidden from conveying riverbeds to anyone in order to fulfill their responsibility "to conserve and protect public lands for

the benefit of the people"<sup>4</sup> All the riverbeds not lawfully conveyed by a special grant are the property of Virginia and may be used by everyone.<sup>5</sup> These special grants are commonly called "crown grants", because the King of England issued most of these grants when Virginia was still a colony. Ownership is uncertain because those rare private ownership exceptions date back to colonial times, and are hard to verify. Only a judge can make a determination of ownership. There also is no good information as to where these grants exist.

Currently these matters are addressed in the courts with a civil trespass suit. Those with legitimate private claims to riverbeds have no clear path to establish it without

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taking someone to court. Additionally people who take to a river from a public boat launch are subject to being charged for trespass if they stop to wade

in the wrong stretch of river. Good intentioned citizens are caught in a difficult position. To prevail in a trespass case they must establish an ownership interest and since they were recreating as a member of the public, they have none. The competing ownership interest is with the state, which is not a party to the case. Ownership is not determined in these trespass cases; confusion, frustration, and de facto exclusion of the public is the only result.

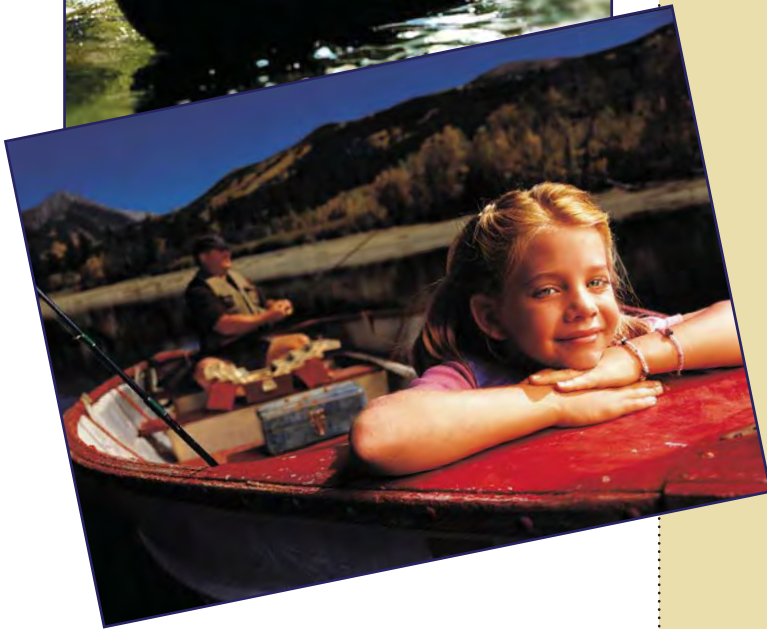
**Right to fish.** Infringements upon the right to fish public waters are related to the riverbed issue discussed above. The primary difference is that authority to grant exclusive fishing rights never existed with the crown or general assembly. The conveyance of riverbeds to private individuals does not in any way affect the public's rights to use and enjoy the waters or living resources therein.<sup>6</sup>

**Right to float.** These rights are generally intertwined with federal court navigability determinations. Waters that have been deemed "navigable" remain so, and are clearly open to recreation. Waters that have not been

**River Access - Learn more at [vcnva.org](http://vcnva.org)**

subject to a courts rule are not necessarily non-navigable. "The question of navigability is one of fact. Its determination must stand on the facts in each case."<sup>7</sup> The Army Corps of Engineers maintains a list of navigable waters, however those are "ultimately dependent on judicial interpretation and cannot be made conclusively by administrative agencies."<sup>8</sup> The absence of a court opinion should not be an obstruction to the public's use and enjoyment of public waters of the commonwealth.

Author: Jacob Powell, Virginia Conservation Network



## **YOUR RIGHT TO FISH, FLOAT AND ACCESS RIVERBEDS**

Virginia benefits from the tourism dollars, small businesses, and local economies that support outdoor recreation.

Citizens should have the right to fish, right to float and access to riverbeds.

Legislation should focus on preserving the public's constitutional rights to fully use and enjoy the waters of Virginia for boating, fishing, hunting, recreation, and commerce, while recognizing legitimate claims of private ownership of riverbeds of these waters.

The protection of private property rights associated with legitimate claims to riverbeds should in no way infringe upon the public's right to fish, float, and recreate in the public waters above them.

The burden of ownership of riverbeds should be upon the adjacent landowner claiming it and the state must be a party to actions involving private claims if ownership is to be determined.



# Nutrient Pollution Trading

Virginia's nutrient credit trading program, significantly expanded by the General Assembly in 2012,<sup>1</sup> may soon be in operation as the lengthy regulation development winds down. The broad program is intended in part to enable the commonwealth to meet its commitments to reduce nitrogen and phosphorus in the Chesapeake Bay watershed. These commitments are outlined in the Phase I Watershed Implementation Plan. Careful monitoring of the developing regulations will continue to be necessary to ensure that trading achieves its goals, does not degrade local water quality and ensures the commonwealth's water quality programs remain consistent with the Clean Water Act and the State Water Control Law.

In 2010, Virginia's Phase I Watershed Implementation Plan proposed a broadly expanded nutrient trading program that would include more participants than its existing trading

programs, make pollution reduction more cost-effective and increase flexibility for regulated entities in meeting the nutrient reductions assigned in the Chesapeake Bay clean-up plan. In its 2012 Session, the General Assembly enacted legislation to meet these goals. This legislation authorized the participation of additional entities: municipal separate storm sewer systems, industrial facilities with stormwater permits, certain animal operations, and permitted construction operators; and it authorized these regulated entities to meet their permit obligations by acquiring certified nutrient credits. Specific measures are intended to ensure that trading actually reduces (rather than relocates) pollution. For example, no entity may generate and sell credits unless it has first met its own Watershed Implementation Plan compliant pollution reduction obligation ("baseline"); and only pounds reduced beyond baseline are eligible to be certified and then traded. Consistent with the Clean Water Act and Virginia law, the legislation specified that trading should not degrade local water quality.

Once completed, the regulation will supply the details to govern the expanded trading process. The regulation prescribes the steps to apply for credit certification and it sets out certain baseline calculations for agricultural operations and urban practices. The regulation also describes a few specifics: the Virginia Department of Environmental Quality will ensure an application's administrative and technical completeness prior to credit certification, it may inspect the credit generation facility and review all required records, and it has the right to suspend or terminate a credit generation facility for noncompliance and other reasons. The regulation also prescribes financial assurance requirements.

**Baselines for Credit Generation.** Virginia's trading legislation rests on the principle that no entity may trade credits until that entity first meets and then exceeds its own baseline, and it requires baselines in the Chesapeake

Bay watershed to be set at levels prescribed by the Phase I Watershed Implementation Plan. The regulation must therefore ensure that baselines for all watershed generators meet that standard by providing sufficient details on how to calculate Watershed Implementation Plan consistent baselines for facilities of all types. The regulation should not accept resource management plan program compliance as baseline, because the program will not be Watershed Implementation Plan consistent in all circumstances. For credit generation outside the Bay watershed, the regulation should specify requirements that are consistent with water quality standards.

**Credit Release.** To ensure that credits deliver the expected pollution reduction benefits, no credits should be generated for certification until the Virginia Department of Environmental Quality has determined that the practices for establishing baseline are in place.

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**“Careful monitoring of the developing regulations is necessary to ensure trading does not degrade local water quality and ensures the commonwealth’s water quality programs remain consistent with the Clean Water Act and State Water Control Law.”**

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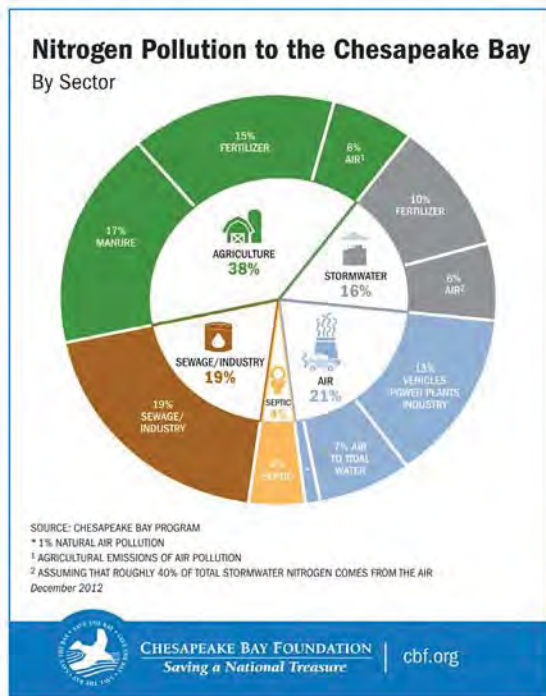
**Nutrient Pollution Trading - Learn more at [vcnva.org](http://vcnva.org)**

**Local Water Quality.** The regulation must provide adequate local water quality protections. For example, to prevent trades that would increase pollution in local waterways, the regulation should prohibit use of credits generated downstream by entities discharging into an impaired watershed.

**Transparency and Public Participation.** Transparency is critical to an effective trading program in which the public has confidence. The regulation must therefore require more than just posted notice of proposed credit-generating facilities on a website. Rather, the regulation should specify that the public will have the opportunity to provide informed comment on any credit generation proposal.

**Inspection and Enforcement.** Appropriate inspection and enforcement will be critical to ensuring that the program is successful in meeting its pollution reduction goals. Accordingly, the regulation should clearly specify key elements of a strong enforcement framework including required Virginia Department of Environmental Quality inspections of each proposed credit generating facility prior to certifying credits, periodic performance monitoring and submission of monitoring information to the Virginia Department of Environmental Quality.

Author: Adrienne Kotula, James River Association; Peggy Sanner, Chesapeake Bay Foundation.



## VIRGINIA MUST MEET WATER QUALITY STANDARDS

Virginia's nutrient credit trading program may soon be in operation as the lengthy regulation development winds down. A strong program should enable the commonwealth to meet its Phase I Watershed Implementation Plan commitments to reduce nitrogen and phosphorus in the Chesapeake Bay watershed.

A nutrient trading program must provide adequate protections for local water quality; this includes additional safeguards in impaired waters.

The public must have the opportunity to provide informed comment on any credit generation proposal.

A Department of Environmental Quality inspection of each proposed credit generating facility prior to certifying credits must be required, along with periodic performance monitoring and submission of monitoring information to the Department of Environmental Quality.

No entity may trade until that entity first meets and then exceeds its own baseline, and the baseline must be sufficient to deliver the pollution reductions required by law and promised in the Watershed Implementation Plan.

## Virginia Conservation Network supports initiatives that promote energy efficiency and renewable energy.

Renewable options such as solar and wind, are extremely valuable to the grid for providing peak power, cost savings, local employment opportunities, and emissions reductions.

The Virginia General Assembly should:

- Amend the state's existing voluntary renewable energy standard to include more power from solar and wind energy generated within Virginia.
- Establish a solar energy carve-out as part of the state's voluntary renewable portfolio standard.
- Incorporate electric cooperatives and municipal utilities into Virginia's renewable energy goals.
- Amend the law to limit the percentage of purchased renewable energy certificates and restrict them to a term of no more than three years.
- Remove the double and triple credits for wind and solar in the Renewable Portfolio Standard.
- Eliminate Renewable Portfolio Standard credit for research and development.
- Raise the cap on the size of solar installations that qualify for net metering to at least two megawatts.
- Establish tax credits or rebates to reduce the upfront cost of solar development and installations on commercial and residential buildings.
- Create a community net metering program.
- Oppose standby charges on net-metering customers.
- Continue funding the Virginia Offshore Wind Development Authority.
- Provide clear direction to the State Corporation Commission that an offshore wind farm off the coast is in the public interest.
- Direct investor-owned utilities to model the potential for higher levels of energy efficiency.
- Commission a study evaluating the availability of cost-effective energy efficiency resources in the commonwealth.
- Authorize the State Corporation Commission to level the playing field for alternative fuel sources.

# Clean Energy





# Renewable Energy Standards

Virginia's Renewable Portfolio Standard is a voluntary program designed to spur development of renewable energy in Virginia. Utilities are able to meet the goals of the program by generating their own energy, by purchasing energy from non-utility generators, or by purchasing renewable energy certificates.

In order to encourage participation, the Renewable Portfolio Standard originally included a ratepayer-funded performance incentive for utilities that met the goals. However, the incentive was repealed by the General Assembly during the 2013 session. The goals remain in place (as well as the ability to recoup incremental costs for meeting them) but the system itself remains voluntary and now includes no incentive.

Left unchanged is the extremely low bar for meeting the Renewable Portfolio Standard goals. Virginia law allows the unlimited use

of old, out-of-state renewable energy certificates to comply with the Renewable Portfolio Standard. Renewable energy certificates represent the environmental benefits attributable to renewable energy generation, and can be sold separately from the underlying electricity. These renewable energy certificates can be "banked", or saved, for an indefinite period of time and used to comply with Renewable Portfolio Standard goals in future years. Utilities have certainly taken advantage of the weak goals to comply with the program.

Dominion has successfully complied with the Renewable Portfolio Standard since the program's inception without using any wind or solar power, and without using a single megawatt hour from a facility built after the law was passed for the purpose of Renewable Portfolio Standard compliance. They rely heavily on the purchase and banking of renewable energy certificates. The utility uses non-utility generators to fulfill the remainder of the goals. Non-utility generators used by Dominion to fulfill past Renewable Portfolio Standard goals primarily came from emitting renewables like biomass and municipal

solid waste. Currently, there is no requirement that utilities use any non-emitting sources of renewable energy for Renewable Portfolio Standard purposes.

Virginia's Renewable Portfolio Standard program needs to be reformed in order to maintain the spirit of the law. Virginia's families and businesses stand to benefit from numerous economic and environmental benefits if the commonwealth passed and maintained a strong Renewable Portfolio Standard.

In 2007, the General Assembly enacted Renewable Portfolio Standard legislation to entice utilities to invest in renewable energy in Virginia. We hoped that meeting these goals would help lower air pollution while creating

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**"100% of renewable energy certificates purchased were from hydro plants built before World War II and less than 1% came from Virginia facilities."**

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good jobs for Virginians. However, the Renewable Portfolio Standard has not worked as it was intended. Both Dominion and Appalachian Power are

able to meet the Renewable Portfolio Standard goals by purchasing old, cheap renewable energy certificates from out-of-state.

The development of actual renewable energy facilities is not required, or even preferred, in the law. In 2012, Dominion purchased more than 1.7 million renewable energy certificates as part of its Renewable Portfolio Standard compliance plan. As shown in the graphs to the right, 100% of renewable energy certificates purchased for this program were from hydro plants, many of which were built before World War II and less than 1% came from Virginia facilities.

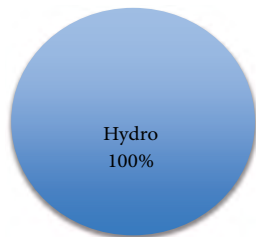
If Virginia's Renewable Portfolio Standard were reformed, the benefits to Virginians from new investments in renewable resources would be tremendous. The Virginia Coastal Energy Research Consortium estimates that developing just part of Virginia's offshore wind resource could create approximately 10,000 career-length jobs and meet 10% of our energy needs.<sup>1</sup> Solar energy,

**Renewable Energy Standards - Learn more at [vcnva.org](http://vcnva.org)**

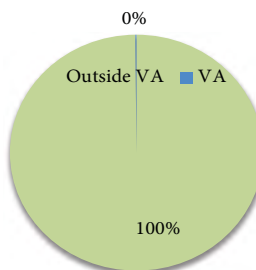
which is one of the fastest-growing sectors of the U.S. economy today, could eventually meet 19% of Virginia's electricity demand.<sup>2</sup>

With these economic benefits come reductions in smog, soot, and carbon pollution. Wind and solar power facilities reduce our reliance on fossil fuels, and mitigate some of the environmental and public health impacts of dirty coal-fired generation. These investments are especially critical for Virginia. The Hampton Roads region is the second most vulnerable in the nation (behind only New Orleans) to rising sea levels linked to climate change. Failing to develop clean, renewable energy facilities within our borders means many lost opportunities for Virginians.

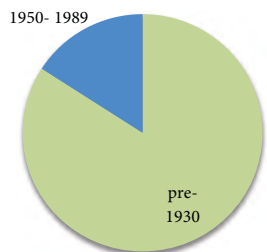
Authors: Dawone Robinson, Chesapeake Climate Action Network; Chelsea Harnish, Virginia Conservation Network; Angela Navarro, Southern Environmental Law Center.



**Fuel Type**



**How much is from Virginia?**



**Date of Service**

Data source: Dominion's 2013 Virginia Renewable Portfolio Standard Compliance Report.

## **RENEWABLE PORTFOLIO STANDARD REFORM**

Failing to develop clean, renewable energy facilities within the commonwealth means many lost opportunities for Virginians.

The General Assembly should amend Virginia's Renewable Portfolio Standards law.

Limit the percentage of purchased renewable energy certificates that can be used to successfully comply with the Renewable Portfolio Standard.

Restrict banking of renewable energy certificates to a term of no more than three years.

Remove the double and triple credits for wind and solar and eliminate Renewable Portfolio Standards credit for research and development.

Reaffirm that successful compliance with the Renewable Portfolio Standards program is within the "public interest."

Remove municipal solid waste and landfill gas from the definition of renewable energy since these energy sources do release emissions and are not truly renewable.

Incorporate electric cooperatives and municipal utilities into Virginia's renewable energy goals so their customers and service territories realize the benefits of diversifying and localizing electricity generation.

# Solar Energy

Solar energy is the fastest growing industry in the U.S., yet it makes up a fraction of one percent of Virginia's electricity supply. A recent analysis of the economic impacts of renewable energy in Virginia, commissioned by the Virginia Conservation Network, shows that 22% of the additional capacity demand needed by 2035, as determined in the 2010 Virginia Energy Plan, can be met with solar photovoltaics.<sup>1</sup>

The cost of solar photovoltaic technology has fallen tremendously in recent years and continues to decline. According to a September 2013 report released by the Solar Energy Industries Association, the price of solar panels has dropped 60% since the beginning of 2011, driving a projected 30% growth in installations in 2013 over 2012 levels.<sup>2</sup>

Harnessing solar energy resources will diversify our energy supply, strengthen the transmission grid, provide an economical source of peak

power, improve our energy security, and help delay the need for other generation and transmission assets. It will also create jobs and attract new business to the commonwealth.

Virginia should adopt policies that will make solar power (utility-owned, customer-owned, and third party-owned) a significant portion of Virginia's energy economy.

Solar electricity provides a wide array of benefits to Virginians: (1) It provides fuel diversity, reducing our reliance on fossil fuels. (2) Distributed photovoltaic solar installations alleviate congestion on high-load portions of the transmissions system and improve service reliability. (3) By generating power closer to where it will be used, distributed solar reduces line losses and defers the need for transmission and distribution system upgrades. (4) Solar power provides significant economic development and job creation benefits.

(5) Solar reduces the environmental and public health impacts of dirty, coal-fired generation.

According to the Solar Energy Industries Association, solar energy employs a work force of over 119,000. A 30% federal investment tax credit for solar (set to expire at the end of 2016), is partially responsible for growth in this vibrant area of domestic energy production. But state-level policies also play a critically important role.

North Carolina offers a 35% tax credit for the construction, purchase, or lease of solar projects. The state also has a Renewable Portfolio Standard that includes a carve-out for solar energy. North Carolinians have installed more than 322 megawatts of solar energy to date.

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**“Solar energy is the fastest growing industry in the U.S., yet it makes up a fraction of one percent of Virginia’s electricity supply.”**

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Like North Carolina, Maryland has a Renewable Portfolio Standard law with a solar energy carve out. Thanks to this policy, Maryland installed 79 mega-

watts in 2012 alone, driving \$205 million in investments. Solar Energy Industries Association documents more than 121 solar companies at work in Maryland, creating jobs “throughout the value chain.”

Virginia, in contrast, lags far behind its neighbors, with only 10 megawatts of solar capacity to date.

Solar industry companies are eager to locate and grow in business-friendly states that promote strong solar energy policies, including: (1) carve-outs for solar electricity in mandatory renewable portfolio standards; (2) allowances for third-party (non-utility) financing; and (3) industry best practices on grid interconnection and net metering. Virginia is currently failing in all three of these categories.

**Examples of Solar Electricity Projects.** Utility-owned, centralized solar power: A large solar facility that produces bulk power on the utility side of the meter and that

**Solar Energy - Learn more at [vcnva.org](http://vcnva.org)**

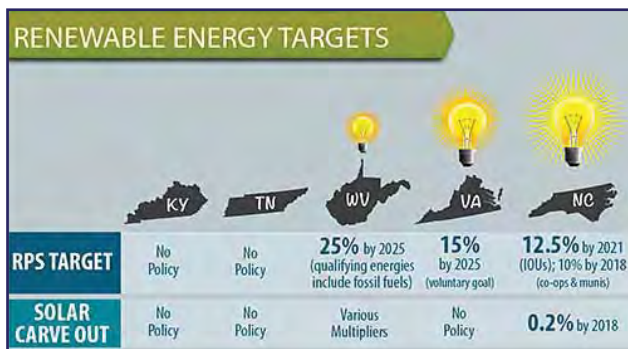


is transmitted from one location (the solar energy plant) to many users throughout the transmission grid. Virginia has no such projects.

#### Utility-owned, distributed generation solar power.

Multiple small-scale solar energy facilities that the utility constructs, owns and operates on utility-owned or customer-owned properties (through a lease agreement). Dominion Power is currently constructing 30 megawatts of solar energy using this approach.

**Customer-owned solar, supported through net metering.** The solar installation is owned entirely by the customer (residential or commercial) and any electricity generated in excess of that used on-site is provided to the utility to offset electricity that the customer otherwise would have purchased from the utility. This has been the primary driver of solar installations in Virginia.



In addition, Dominion Power is purchasing up to 3 megawatts of the output of some solar owners who would likely otherwise net meter, for sale to its Green Power Program.

**Third-party Power Purchase Agreements directly with customers.** A third-party (non-utility, non-customer) builds and owns a solar facility, and the electricity is sold directly to the retail electric customer (i.e., the homeowner or building owner) through a long-term agreement. The electric utility is not directly involved. Some power purchase agreement projects are under development in Virginia, within the terms of a limited two-year “pilot” enacted in 2013 and effective in Dominion’s territory only.

Author: Ivy Main, Sierra Club; Cale Jaffe and Angela Navarro Southern Environmental Law Center.

## HARNESS OUR SOLAR ENERGY

Harnessing Virginia’s solar energy will create jobs and attract new business. It is necessary the General Assembly:

- Permit customers to share the benefits of solar energy by allowing community net metering, also known as solar gardens, under which output from a single solar facility is attributed to multiple customers, each of whom can use a portion of the solar output to offset their electrical use through net metering. Legislation should also ensure that local governments are able to negotiate clauses in their purchasing contracts with utilities that would allow them to attribute the solar output from a government-owned solar project to multiple meters on other government-owned property.
  - Reject efforts by utilities to impose new ‘stand-by’ charges on owners of solar arrays. These charges have proved to be project killers, and their expansion threatens the very ability of independent solar installers to do business in Virginia. Studies have shown that customer-owned solar energy installations provide significant valuable benefits (in the form of avoided energy costs, alleviating grid congestion, deferring the need for transmission upgrades, etc.) that make them a net benefit to utilities and other ratepayers.<sup>3</sup> Thus standby charges should be rejected as both unwarranted and anticompetitive.
  - Ensure that owners of property in neighborhoods governed by homeowners’ associations can install solar systems free from blanket bans or unreasonable restrictions on placement.
- ### Additional measures to promote solar energy
- Establish a solar energy carve-out as part of the state’s voluntary renewable portfolio standard.
  - Adopt incentives in the form of tax credits or rebates to reduce the upfront cost of solar development and installations on commercial and residential homes.
  - Raise the cap on the size of solar installations that qualify for net metering treatment to at least 2 megawatts to satisfy customer demand and open up the market for larger projects.

# Offshore Wind

Recently, Virginia was thrust into the national spotlight, in the offshore wind arena, by having the second lease auction for an offshore Wind Energy Area in the federal waters off the coast ever to take place. With the fourth largest wind capacity potential along the east coast, Virginia has the potential to be a leader in this new industry. By aggressively improving energy efficiency and tapping our capacity for renewable energy we can move toward a future powered by clean renewable energy.

Offshore wind is one of the best ways for us to move away from burning dirty fossil fuels that contribute to climate change. According to the National Renewable Energy Laboratory, Virginia's total offshore wind resource exceeds our entire energy demand. In the near term, wind power off our coast can provide up to 10 percent of our energy needs, according to a study by the Virginia Coastal Energy Research Consortium (VCERC). We have the resources, but now we need the action of our government officials to make it a reality.

The Cape Wind project off the coast of Massachusetts took over ten years to permit and is still being held up in the courts system before it can even begin construction. Meanwhile, Europe has been operating offshore wind farms for over two decades and China recently brought their first project online. The U.S. is falling behind, but with the right policies in place, Virginia could easily put our country on the map.

In September of 2013, Dominion Virginia Power was the winning bidder to lease the 133 square mile wind energy area 23 miles off Virginia's coast, potentially providing up to 2,000 megawatt of power to 700,000 homes in Virginia. The federal government, through the Bureau of Ocean Energy Management has a strict timeline, within which, the utility must adhere to in order to continue operating in the area. Dominion Virginia Power will need to submit plans for how they will assess various

environmental, biological and geophysical properties of the area as well as submit a timeline for when they plan to begin construction on an actual project. Dominion continues to include a caveat in their support for offshore wind saying they will only build a project if the costs come down.

In the VCERC report, offshore wind costs were determined to be equal to or better than new nuclear or coal-fired generation. Furthermore, unlike fossil fuel sources, offshore wind operating costs are not subject to fluctuations in fuel prices, or to increases in costs due to pollution as will likely result from upcoming carbon pollution restrictions the EPA is currently considering.

In 2013, the General Assembly earmarked \$1 million

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**“Developing part of Virginia’s offshore wind resource could create approximately 10,000 career-length jobs and meet 10% of our energy needs.”**

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for the Virginia Offshore Wind Development Authority to assist in the development of an offshore wind industry in Virginia. Virginia has

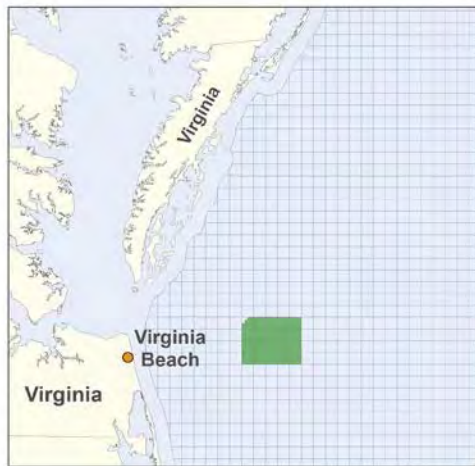
been granted non-competitive leases from the Bureau of Ocean Energy Management for 2 research lease areas in and adjacent to the WEA that is now being leased by Dominion. The research lease area adjacent to the wind energy area is a joint partnership project with Dominion, Department of Mines Minerals and Energy, Alstom and other companies to analyze turbine foundation prototypes as a means for reducing construction costs of offshore projects. This project was one of 7 that received money from the Department of Energy. In May 2014, the Department of Energy will select 3 of these projects to provide further funding for actual build out of the project. If the Dominion project moves, this will bode well for offshore wind off our coast. However, Dominion officials have stated publicly that this project will most likely not move forward if they do not win the the Department of Energy money, thereby putting the reality of offshore wind off our coast at risk.

By investing in offshore wind, Virginia stands to see economic gains in the form of new jobs from manufacturing

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and installing wind turbines, which are costly to transport. A 2012 report from the Virginia Economic Development Partnership identified the economic development potential in offshore wind. The shipbuilding trades already based in Hampton Roads, coupled with the region's port infrastructure, make it an attractive location to base wind-energy manufacturing serving the eastern seaboard.

However, Virginia lacks strong policies to support offshore wind. Currently Virginia has only a relatively weak, voluntary renewable energy goal of 15 percent of non-nuclear



Virginia Wind Energy Area

electric generation by 2025, based on 2007 sales, which translates into about 7 percent of total electric generation in 2025. With offshore wind eligible for triple credit, the goal could actually be satisfied with less than three percent of our total electricity coming from renewables. This is one of the weakest renewable energy targets in the nation, and falls far short of what Virginia can attain. As a result, manufacturers and installers of renewable energy are less confident locating businesses here, and those renewable energy generators that do, may find the power they generate undervalued in the market for renewable energy certificates.

Virginia needs to consume less energy overall and generate more energy from renewable sources. In order to meet our future energy needs without causing environmental harm and health problems for our citizens, we must act quickly. Investing in renewable electricity now is all the more important if automobiles and mass transit are to migrate onto the grid in the foreseeable future.

Author: Chelsea Harnish, Virginia Conservation Network

## DEVELOPING VIRGINIA'S OFFSHORE WIND POTENTIAL

Virginia lacks strong policies to support offshore wind. Virginia needs to consume less energy overall and generate more energy from renewable sources. In order to meet our future energy needs without causing environmental harm and health problems for our citizens, we must act quickly. Investing in renewable electricity now is all the more important if automobiles and mass transit are to migrate onto the grid in the foreseeable future.

The General Assembly should:

- Amend the state's existing voluntary renewable energy standard to include more power from solar and wind energy generated within Virginia.
- Continue funding the Virginia Offshore Wind Development Authority to investigate the state's coastal and offshore renewable resources potential and to assist regulators, private sector investors, local governments and the Department of Defense.
- Authorize the State Corporation Commission to level the playing field for alternative fuel sources by considering the benefits to consumers from the price stability, economic development, and cleaner air and water that renewable forms of energy provide.
- Provide clear direction to the State Corporation Commission that an offshore wind farm off the Virginia coast is in the public interest.



# Energy Planning and the Role of Energy Efficiency

Critical decisions about the energy and environmental concerns affecting our communities are first laid out in long-range planning documents prepared by the electric utility companies. Under Virginia law, enacted in 2008, these Integrated Resource Plans are filed by the utilities every two years with the State Corporation Commission (SCC). The Integrated Resource Plan must include a forecast of a utility's future electricity needs and develop a plan to reliably meet those needs at the lowest reasonable cost for customers. In Virginia, Integrated Resource Plans are required to look forward fifteen years.

The Integrated Resource Plan provides an important forum for the public to evaluate a utility's long-term plans. While an Integrated Resource Plan does not commit a utility to pursue a specific project they may have included in the planning

document, the review process is the principal time when customers, the power companies, and the State Corporation Commission can evaluate all potential energy resource choices.

Additionally, the Integrated Resource Plan process is iterative, as criticisms and weaknesses found in current Integrated Resource Plans should lead to significant improvements in the utility's development of future planning documents.

Given an Integrated Resource Plans' unique role, transparency and public input are crucial. Stakeholder involvement prior to filing an Integrated Resource Plan is essential in identifying necessary improvements. These opportunities may be a citizen's best means of advocating for greater investments in cost-effective, low polluting options such as wind power, solar power, and energy efficiency. After all, the only way to ensure that Virginia enjoys a cleaner energy future is to begin planning for it now.

The State Corporation Commission is charged with regulating electric utilities and reviewing whether a utility's

Integrated Resource Plans sets forth a plan that will meet customer demands over a fifteen year time period in a manner that "promote[s] reasonable price[s], reliable service, energy independence, and environmental responsibility."<sup>1</sup> When developing an Integrated Resource Plans, the State Corporation Commission's guidelines require utilities to evaluate supply-side resources (e.g. power plants and wholesale energy purchases) on an equal basis with demand-side resources (e.g. energy efficiency and conservation). An open and competitive analysis of various resources is critical in formulating a low cost and low risk plan.

The two largest investor-owned utilities in Virginia, Dominion Virginia Power and Appalachian Power Company, filed their first Integrated Resource Plans in

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**"Accelerating investments in energy efficiency programs would conserve nearly 3,000 megawatts of electricity in Dominion's service territory alone by 2027. Providing enough power to offset the need for two large fossil-fired powerplants."**

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2009 and the SCC granted public hearings to review the analyses underlying the plans. Concerns regarding the failure to incorporate the cost of environmental control

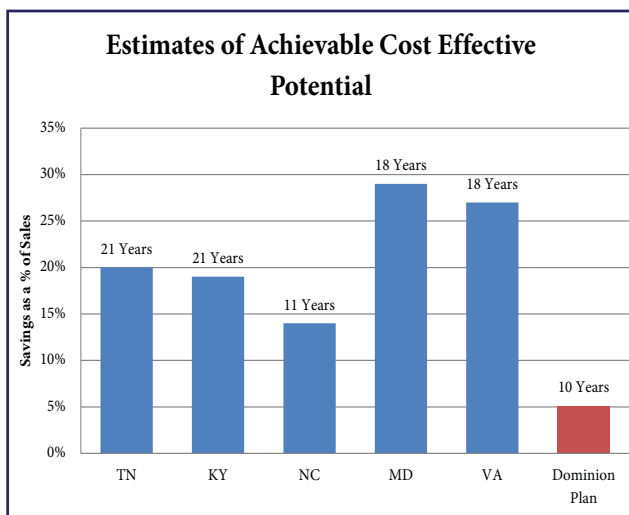
standards affecting coal-fired power plants (e.g. EPA's regulations for toxic mercury pollution) were raised, and the SCC found that these issues should be considered by the utilities in future Integrated Resource Plans. In the 2011 Integrated Resource Plans, the utilities did improve their consideration of environmental compliance costs, which led to their decisions to retire some of the oldest and dirtiest coal-fired power plants in their respective fleets. Those retirements were still included in the 2013 Integrated Resource Plans.

However, both utilities have consistently favored an outdated energy planning model that fails to evaluate all resource options fairly and on a level playing field. Principally, the utilities have unnecessarily limited the level of energy efficiency programs that they would support over the fifteen year planning period in their 2013 Integrated Resource Plans. A report released earlier this year by a team of energy experts, entitled "Changing Course:

**Energy Planning and the Role of Energy Efficiency - Learn more at [vcnva.org](http://vcnva.org)**

A Clean Energy Investment Plan for Dominion Virginia Power,” showed that accelerating investments in energy efficiency programs to a conservation level of 1.3% of energy sales each year going forward would be both cost-effective and would conserve a total of nearly 3,000 megawatts of electricity in Dominion’s service territory alone by 2027.<sup>2</sup> This level of investment would provide enough power to offset the need for two large fossil-fired power plants at a fraction of the cost of building new power plants and transmission grid expansion.

The consistent cost advantages of energy efficiency over traditional generation should prompt the utilities to analyze greater levels of energy efficiency. The Virginia General Assembly adopted a voluntary goal for utilities to



reduce retail customer energy consumption by 10 percent by 2022. However, Dominion only plans to achieve just over half of this goal in its 2013 Integrated Resource Plan, and Appalachian Power has yet to implement a single energy efficiency program in the commonwealth.

Public hearings on both the Dominion and Appalachian Power Integrated Resource Plans will take place in 2014.

Author: Angela Navarro, Southern Environmental Law Center.

The graph above is adapted from the report *Changing Course: A Clean Energy Investment Plan for Dominion Virginia Power*.

## THE PATH TO A CLEANER ENERGY FUTURE

Critical decisions about the energy and environmental concerns affecting our communities are first laid out in long-range planning documents prepared by the electric utility companies. These Integrated Resource Plans are filed by the utilities every two years with the State Corporation Commission.

Stakeholder involvement prior to filing an Integrated Resource Plan is essential in identifying necessary improvements. Citizens should advocate for greater investments in cost-effective, low polluting options such as wind power, solar power, and energy efficiency.

Should the General Assembly revisit the Integrated Resource Plan statute, it should direct investor-owned utilities to model the potential for higher levels of energy efficiency going forward. This process would be identical to the utility’s current methodology of modeling the addition of future supply-side resources, such as large, centralized power plants. Doing so will enable the development of an Integrated Resource Plan that meets the Integrated Resource Plan Guidelines’ directive to “comparably evaluate various supply-side technologies and demand side programs and technologies on an equivalent basis.”<sup>3</sup>

The General Assembly should commission a new energy efficiency potential study that evaluates the availability of cost-effective energy efficiency resources in the commonwealth. The General Assembly should then direct the utilities to model energy efficiency investments that meet this cost-effective level when developing the Integrated Resource Plans.

# Net Metering

In the United States most electricity is generated at large generating plants and transmitted long distances on extra-high voltage transmission lines. Combustion based generation, such as coal and natural gas plants produce greenhouse gases. Nuclear power is expensive and leaves behind spent fuel and other radioactive materials that must be safely stored for thousands of years. As the electricity from these remote plants is transmitted to its destination some of the electricity is lost along the way.

Renewable power can alleviate the problems associated with environmental harm. Locating that renewable generating source close to the load further addresses the line loss problem. However, many regulators, including the Virginia State Corporation Commission, see renewable power as an expensive “luxury” when compared with traditional generating sources, and particularly when the external costs, such as environmental depredation, is not taken into account.

One solution is to have individuals and businesses install renewable generation at their own expense at the site where the electricity will be consumed. Net metering is one way to incentivize that choice.

Net energy metering was first adopted in the commonwealth in 2000. “Net metering” is shorthand for a legislative policy requiring utilities to offer an electricity purchase program to customers who have their own (usually small renewable) generating facility, such as rooftop solar panels or small wind turbines. Electricity generated on-site is fed into the customer’s system, and any excess is delivered to the electric grid for the use of other customers. In simple terms, when a generating facility produces more power than the customer is using, their meter will run backwards because they are putting power into the electric grid rather than removing it.

Under Virginia law only a small amount of net metering is permitted. Utilities are not required to accept

more than one percent (1%) of their peak load forecast from the previous year. Current law further restricts the benefits of net metering to a single meter on the property where the electricity is being generated. Changing the law to expand the amount of net metering that could be allowed; to attribute the power to more than one meter on a property, or to allow multiple customers to share the benefits of a system, would give Virginians greater access to renewable energy and create new business opportunities for solar manufacturers and installers in the commonwealth.

Community net metering has become popular in other states as a means for allowing utility customers to work together to install renewable energy systems that will benefit all members of the group. Where solar energy is

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**“Changing the law to attribute power to more than one meter on a property, or to allow multiple customers to share the benefits of a system, would give Virginians greater access to renewable energy and create new business opportunities.”**

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involved, community net metering arrangements are sometimes referred to as “solar gardens.” An example might be a solar system installed on the common area

of a homeowners association or on a church, where the electricity generated is attributed to the homes in the homeowners association or to the congregants of the church, who share the electricity credit to offset their own electric bills. Current law would not permit such arrangements.

A more limited form of net metering allows a single customer with multiple electric meters to attribute the electricity generated by one renewable energy system to all of the meters. In 2013 the General Assembly passed HB1695 to permit that kind of net metering to eligible agricultural customers. To qualify as an agricultural net metering facility under this legislation, the generating facility must be under 500 kilowatts, is limited to solar, wind or digester gas; must be operated as a part of an agricultural business and be on land owned or controlled by the agricultural business. The law goes into effect in 2014 for customers of investor owned utilities and in 2015 for electric cooperatives. The State Corporation

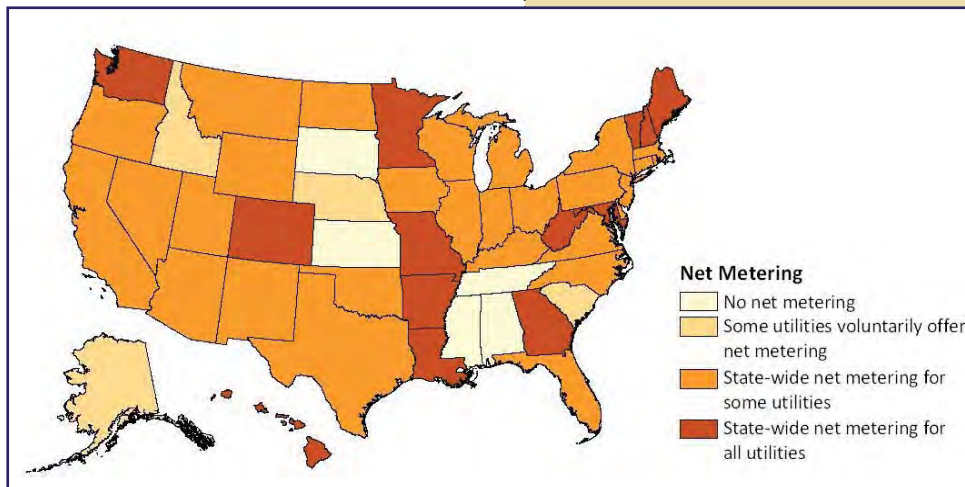
**Net Metering - Learn more at [vcnva.org](http://vcnva.org)**

Commission is currently working on regulations to implement the law.

Some utilities operating in the commonwealth have resisted expansion of the net metering provision, and indeed have sought to limit the use of net metering. Utilities argue that distributed generation systems involve costs to other customers from interconnection and use of the transmission/distribution network. In 2011 the General Assembly passed a bill allowing the State Corporation Commission to approve a “standby” charge for residential net metering customers with renewable generation facilities between 10 and 20 kilowatts. Dominion has begun charging this standby fee.

## INCREASE CUSTOMER GENERATED RENEWABLE ENERGY

Customer-generated renewable energy offers significant benefits to the public as well as to individual owners of systems. These systems provide power directly where it is used, reducing line losses and the need for new utility generation. They also strengthen the electric grid, relieve grid congestion, and reduce our reliance on fossil fuels that pollute the air and water. These systems are increasing in popularity, spurring the growth of new businesses and creating jobs in a 21st century economy.



Author: Rob Marmet, Piedmont Environmental Council

The General Assembly should take steps to support and increase the availability of options for customers to install renewable energy systems, including through the expansion of agricultural across property lines and creating a community net metering program.



## **Green communities come in all shapes and sizes, rural and urban.**

They embrace smart growth and public transportation, and they protect land for agriculture and recreation. The benefits of green development are substantial. Green development can result in considerable economic benefits derived from walkable downtowns to efficient transportation. Other benefits include increased access to jobs, creation of jobs, lower infrastructure costs, less expensive public services, higher property values, increased crop yields and protection of wildlife and green spaces. Public transportation reduces our dependence on foreign oil, reduces traffic congestion and decreases harmful pollutants.

Green communities offer their residents a plethora of benefits, ranging from economics to aesthetics, and as a result become more attractive places to locate a business, raise a family or take a vacation.

The Virginia General Assembly should:

- Support targeted transportation funding provisions.
- Support stronger performance standards for transportation planning.
- Support transportation process reform.
- Support enhanced funding and authority for passenger rail.
- Support Public Private Transportation Act reform.
- Support baseline funding to Intercity Passenger Rail Operating and Capital and secure additional resources.
- Support the revitalization of cities, towns and older suburban communities. Strengthen the use of designated growth areas and service districts.
- Oppose actions that would weaken local community planning.
- Support funding the State Office of Farmland Preservation for the local Purchase of Development Rights matching grant programs.
- Support funding the Virginia Land Conservation Foundation.

# **Green Communities**



# Land Conservation

Successful land conservation requires action and initiative at all levels that is geared toward the protection of a diversity of lands. State agencies, local communities, and private individuals need the right tools to protect working farms and forests, scenic landscapes, natural areas, wildlife habitat and game lands, historic resources, and parks and recreational areas for present and future generations of Virginians. Without significant and reliable funding for land conservation programs, Virginia will not achieve conservation results at a large enough scale to: maintain the quality of life that attracts businesses and tourists to the commonwealth, conserve the land base which supports our two largest industries – forestry and agriculture, meet its commitment to restore the Chesapeake Bay, access available federal and private conservation dollars that require matching funds, and ensure that future generations can enjoy the beautiful, diverse Virginia that we know today.

Virginians have said repeatedly in surveys, polls, and at the ballot box that they are willing to invest in the protection of open space. The programs listed below need adequate funding to protect our most important natural, cultural, and historic resources for the benefit of future generations.

**Land Preservation Tax Credit.** The Land Preservation Tax Credit is Virginia's most successful, dependable land conservation funding program and is one of the best land conservation tax incentive programs in the nation. This program is an efficient and effective way to encourage private voluntary land conservation by providing taxpayers who make gifts of land or conservation easements tax credits equal to 40 percent of the value of their donated interest. Landowners with lower incomes who are unable to use all of their tax credits may transfer unused but allowable credits to other taxpayers. Before the implementation of the tax credit, 19 counties had more than 1,000

acres of land protected by conservation easements. Ten years after implementing this program, that number has rocketed to more than 80 localities with more than 1,000 acres of land protected by conservation easements.

**Grant programs.** In addition to maintaining the incentives that encourage landowners to donate conservation easements, Virginia needs to allocate funds for the purchase of easements and land. In the 2013 General Assembly, HB1398 addressed this need by requiring the Governor to make an appropriation to the three grant programs listed below. The amount of the appropriation is to be the difference between \$100 million and the consumer price index-adjusted cap that formerly applied

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**“Agencies, communities, and individuals need the right tools to protect working farms, forests, scenic landscapes, natural areas, wildlife habitat, historic resources, and parks and recreational areas for present and future generations.”**

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to the land preservation credit. For FY2015, that amount is \$13.9 million.

**Office of Farm land Preservation.** In 2007,

Virginia made a commitment to working farms and forestland through an investment of \$4.25 million for farmland preservation at the local level. Localities responded to the state investment by pledging 10 times the amount in matching funds, totaling \$45 million. The matching Purchase of Development Rights (PDR) program requires counties to match dollar for dollar the amount that is granted to them by the commonwealth. Virginia is receiving at least a 50% return on its investment. Since these matching funds became available, 20 localities have adopted local PDR programs. In order for these localities to keep the PDR programs strong; reliable and consistent funding is needed to maximize the potential of this conservation partnership. It is critical that in these difficult financial times, the state continue to make investments in PDR funding to ensure that the commonwealth's largest industry – agriculture and forestry – continue to have the land on which to operate.

**Virginia Land Conservation Foundation.** The Virginia Land Conservation Foundation (VLCF) provides state

**Land Conservation - Learn more at [vcnva.org](http://vcnva.org)**



matching grants for the preservation of various categories of special lands in the commonwealth. These grants are awarded on a competitive basis for the protection of open spaces and parks, natural areas, historic areas, and farmland and forest preservation. Like the Office of Farmland Preservation, this highly effective program leverages local and federal investment for natural resource conservation by paying no more than 50% of the cost of worthy projects. Grant applications to the VLCP program have consistently far exceeded available funds.

**Civil War Sites Preservation Fund.** This matching grant program offers permanent protection, through acquisition or easements, for Civil War battlefield lands that are listed in the National Park Service's "Update to the Civil War Sites Advisory Commission's Report on the Nation's Civil War Battlefields." The Department of Historic Resources evaluates projects according to the significance of the battlefield, the integrity of its present condition, and the threats to it, as well as the financial and administrative capacity of the applicant, plans for future management for preservation and public benefit.

Authors: Heather Richards, Piedmont Environmental Council; Nikki Rovner, The Nature Conservancy

The table below is a Summary of Findings, Total Service Values by Policy Level, provided in *The Economic Benefits of Natural Goods and Services*, a report for the Piedmont Environmental Council.

	All Virginia Land Cover	Public Lands in Virginia	Virginia Lands Under Easements
Water Quality	\$5,200,000,000	\$810,000,000	\$140,000,000
Water Supply	\$980,000,000	\$170,000,000	\$24,000,000
Pollination	\$27,000,000	\$460,000	\$650,000
Recreation	\$8,000,000,000	\$3,200,000,000	\$130,000,000
Forest Products	\$1,800,000,000	\$250,000,000	\$42,000,000
Farm Products	\$2,300,000,000	\$43,000,000	\$94,000,000
Disturbance Prevention	\$1,900,000,000	\$410,000,000	\$55,000,000
Habitat	\$450,000,000	\$91,000,000	\$14,000,000
Carbon Sequestration	\$1,100,000,000	\$170,000,000	\$26,000,000
<b>Total</b>	<b>\$21,800,000,000</b>	<b>\$5,100,000,000</b>	<b>\$520,000,000</b>

## THE PATH TO PROTECTING OPEN SPACES

Virginians have said repeatedly in surveys, polls, and at the ballot box that they are willing to invest in the protection of open space. Citizens should advocate for adequate funding to protect our most important natural, cultural, and historic resources for the benefit of future generations. Virginia needs to make a financial commitment to land conservation.

Virginia needs to continue the Land Preservation Tax Credit Program in its current form.

Virginia needs to allocate at least \$1.39 million dollars per year, as called for in HB 1398 (2013), over the next two years for the State Office of Farmland Preservation's matching fund for local PDR programs.

Virginia needs to allocate at least \$11.12 million dollars per year, as called for in HB 1398 (2013), over the next two years for the Virginia Land Conservation Foundation.

Virginia needs to allocate at least \$1.39 million dollars per year, as called for in HB 1398 (2013), over the next two years for the Civil War Sites Preservation Fund.

# Transportation Reform

The 2013 Virginia General Assembly passed, and Governor McDonnell signed, the most significant transportation funding legislation in almost 30 years. This complex package is projected to raise over \$1 billion annually, and contains a number of provisions we supported, as well as provisions we opposed. Unfortunately it does not contain any Virginia Department of Transportation (VDOT) reforms or provisions to ensure that the new funding will be spent wisely. The state continues to focus heavily on highway construction and slights both transportation alternatives and land use impacts. This approach is costly to taxpayers, increases energy dependence, destroys natural and rural areas, spurs sprawl, increases air and water pollution, contributes to global climate change, and limits transportation choices, while doing little to relieve congestion in the long run.

Transportation has been a central issue in Virginia for years. Governor McDonnell's proposed \$4 billion

funding package was largely adopted by the General Assembly in 2011, and elements of a complicated omnibus bill passed in 2012, including earmarking a greater share of any surplus for transportation. In 2013, a massive funding package (HB2313) was adopted that included imposing a fee on alternative fuel vehicles, replacing the retail gas tax with a wholesale one, increasing the sales tax and shifting billions of general fund dollars to transportation that would have gone to conservation and other needs. The package is projected to raise roughly \$3.5 billion state-wide over the next five years alone; additional regional taxes are projected to raise about \$1.5 billion in Northern Virginia and \$1 billion in Hampton Roads during that time. Although some new funding will go to transit and rail, most of it will go to highway construction.

Meanwhile, our transportation challenges are increasing. Gas prices are volatile, transit services have been cut and/or fares hiked, many existing roads and bridges are in poor condition, and transportation and land use

decisions are rarely coordinated. Transportation also has been the leading—and fastest rising—source of carbon dioxide in the state.

Virginia spends billions of taxpayers' dollars on transportation each year—primarily on roads. The Commonwealth Transportation Fund FY2014 budget is just over \$5.2 billion; VDOT's budget accounts for almost \$4.7 billion of that. Evidence shows that new and wider highways often fail to provide long-term congestion relief since they cause development to spread out and generate significant new traffic. Yet VDOT is advancing costly highway projects that increase sprawl and driving, while failing to target areas of greatest need. In addition, VDOT's focus on public-private highway and toll deals

limits input by citizens and public officials, undermines environmental review, and advances unneeded projects.

**“The state continues to focus heavily on highway construction and slights transportation alternatives and land use impacts. This approach is costly to taxpayers, increases energy dependence, destroys natural and rural areas, and spurs sprawl while doing little to relieve congestion in the long run.”**

There has been bipartisan recognition of the need to reform VDOT and to improve our transportation policies. Recommendations include:

## **Support targeted transportation funding provisions.**

The massive funding package adopted in 2013 has both positive and negative elements. Among the funding changes needed—either as an amendment or as a supplement to the new funding law—are:

- Eliminate the annual “hybrid car tax” imposed on hybrid and electric vehicles, which creates a disincentive for purchasing vehicles that help achieve critical goals such as reducing pollution and conserving energy.
- Allow new tax revenues in Hampton Roads to be used for projects other than construction of new or existing roads, bridges and tunnels.
- Oppose any amendment to add regional taxes for the Richmond area unless adequate provisions are included regarding governance, integrating transportation and

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land use, and funding for public transit, passenger and freight rail, walking, and bicycling.

- Provide increased funding for transit, bicycle, and pedestrian projects.

**Support stronger performance standards for transportation planning.** Expand requirements for the development of performance standards and require VDOT and large metropolitan areas to meet measures that include reduction in per capita vehicle miles traveled and increased mode share for transit, carpooling, walking, bicycling and telecommuting. Oppose any measure establishing funding priorities that does not include environmental quality as a priority, or that narrowly defines congestion relief as a priority largely limited to road construction projects.

**Support enhanced funding and authority for passenger rail.** A positive feature of the new transportation law is the dedicated funding for passenger rail. This funding should be protected and additional federal, state, and local resources secured. In addition, the establishment of a Virginia Rail Authority to help ensure continuity of policies and investments and provide a mechanism for ownership of assets funded by Virginia's taxpayers should be studied.

**Support transportation process reform.** There have been numerous efforts in recent sessions to reform aspects of state transportation planning. Any action that will reduce the environmental impacts of projects, enhance public involvement in planning, improve the Public Private Transportation Act, or seriously reform VDOT planning and CTB oversight should be supported.

**Support improving the link between transportation and land use, and providing incentives for smarter growth.** Potential measures include: target transportation spending to existing communities and congested areas, tie transportation funding to land use changes that reduce travel demand, fund and improve access management and street connectivity projects and policies; provide technical assistance to localities to promote transit-oriented development, and repeal recent requirements that local land use plans conform to state transportation plans.

Author: Trip Pollard, Southern Environmental Law Center

## TRANSPORTATION FUNDING REFORM

Virginia spends billions of taxpayers' dollars on transportation each year—primarily on roads.

Evidence shows that new and wider highways wider highways often fail to provide long-term congestion relief. since they cause development to spread out and generate significant new traffic.

Virginia Department of Transportation is advancing costly highway projects that increase sprawl and driving, and fail to target areas of greatest need.

Virginia Department of Transportation's focus on public-private highway and toll deals limits input by citizens and public officials, undermines environmental review, and advances unneeded projects.



The General Assembly should:

- Support targeted transportation funding provisions.
- Support stronger performance standards for transportation planning.
- Support enhanced authority and funding for passenger rail.
- Support transportation process reform.
- Support improving the link between transportation and land use, and providing incentives for smarter growth.

# Passenger Rail

Passenger rail is essential to reducing congestion, giving people greater transportation choices, increasing energy efficiency, and improving Virginia's economic competitiveness. Rail ridership is at record levels. The General Assembly created the Intercity Passenger Rail Operating and Capital Fund in 2011, and the transportation funding package approved in 2013 provided a dedicated source of revenue for this fund. It is essential to build upon this funding for intercity passenger rail—and to improve rail policies—in order to keep Virginia's intercity, regional trains operating and to expand passenger rail service.

Increased congestion on our roads and in our airways, vulnerability to volatile fossil fuel prices, and air and water pollution are just some of the problems with our current transportation system that have led many local, state, and federal officials to endorse more sustainable transportation

options. Rail plays a critical part in a more sustainable transportation approach, and increased freight and passenger capacity can help maximize the energy efficiency and competitiveness of Virginia's economy, especially in corridors where additional highway projects are prohibitively expensive and/or environmentally detrimental.

Enhanced and high speed intercity passenger rail can link Virginia's metro regions, giving people needed alternatives to driving. The commonwealth's regional train corridors—the Piedmont (Roanoke/Lynchburg-Charlottesville-Alexandria) and Urban Crescent (Hampton Roads, Richmond, Washington)—serve areas that are home to almost 75% of our population. Further, these corridors serve 46 higher educational institutions and over 450,000 students, more than 20 military installations and over 60,000 active members of the military, and represent 82.5% of Virginia's economy. These areas also have many of our most congested roads.

Public demand for intercity passenger rail is rising rapidly, as is demand for public transit connections

to passenger trains. Ridership on Amtrak in Virginia exceeded a million riders for the first time in 2008 and grew 56.8 percent between 2009 and 2013. Moreover, ridership on Virginia's regional trains has grown by 99.83 percent since 2009. Virginia Railway Express, the commonwealth's commuter rail service, saw its ridership grow by over a million riders between 2008 and 2012 and exceed 20,000 daily passengers for the first time in its 20 year history during the last fiscal year. Further, a bus connection between Roanoke and Virginia's Lynchburg regional train is handling 281 percent more passengers than originally anticipated.

Yet funding pressures are increasing.

In late 2008, Congress passed the Passenger Rail Invest-

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**“Enhanced and high speed intercity passenger rail can link Virginia's metro regions, giving people needed alternatives to driving.”**

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ment and Improvement Act (PRIIA), which created the framework for federal investment in high-speed rail. Federal guidelines also

included in PRIIA require that states locate a long-term, sustainable funding source for passenger rail operations and cover the operational costs of any regional train service (trains operating on routes less than 750 miles).

Virginia has three such regional routes on two primary corridors.

The Piedmont corridor includes stops in Lynchburg, Charlottesville, Culpeper, Manassas, Burke Centre, and Alexandria with a train-to-bus connector extending from Lynchburg to Bedford, Roanoke, Salem, and Blacksburg. The Urban Crescent Corridor is divided into a North and South route. The Urban Crescent North route includes stops in Alexandria, Woodbridge, Quantico, Fredericksburg, Ashland, Richmond: Staples Mill Station, Richmond: Main Street Station, Williamsburg, and Newport News. The Urban Crescent South route includes the stations between Alexandria and Richmond: Staples Mill, as well as stops in Petersburg and Norfolk and a bus connection to Virginia Beach. These trains all serve

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destinations along Amtrak's Northeast Corridor between Washington, DC and Boston.

The good news is that long-term, sustainable funding became a reality in 2013 due to the leadership of Governor McDonnell, Speaker Howell, Senator Watkins, and a strong bi-partisan coalition of legislators. The transportation funding package the General Assembly adopted included provisions that are projected to provide about \$256 million over the next five years to the Intercity Passenger Rail Operating and Capital Fund.



However, Virginia lacks a long-term vision for the continued investment and expansion of intercity passenger rail. The Commonwealth must take the next steps needed to improve and increase its regional train service and to ensure that the taxpayers' resources are invested wisely.

Authors: Daniel Plaughner, Virginians for High Speed Rail; Trip Pollard, Southern Environmental Law Center.

## **RAIL PROVIDES AN ALTERNATIVE TO DRIVING**

Enhanced and high speed intercity passenger rail can link Virginia's metro regions, giving people needed alternatives to driving.

Virginia lacks a long-term vision for the continued investment and expansion of intercity passenger rail. The Commonwealth must take the next steps needed to improve and increase its regional train service and to ensure that the taxpayers' resources are invested wisely.

Virginia should articulate and adopt a strong, clear long-term vision for passenger rail. To date, state rail plans have tended to focus on short-term projects and lack long-term vision.

Virginia should study the potential of a Virginia Rail Authority to help ensure continuity of policies and investments and provide a mechanism for ownership of assets funded by Virginia's taxpayers.

Virginia should protect the baseline of funding recently dedicated to Intercity Passenger Rail Operating and Capital and secure additional federal, state, and local resources.

Virginia should ensure that future intercity passenger rail investments are better connected to land use plans.

# Public-Private Transportation Reform

Virginia's Public-Private Transportation Act of 1995 has become the primary means for constructing large transportation projects, expanding beyond its original purpose and shifting power to the governor and the private sector. The Public-Private Transportation Act allows private entities to enter into agreements with the state to construct, improve, maintain, and operate transportation facilities. Yet experience with Public-Private Transportation Act projects and proposals indicates that the statute is flawed and raises significant doubts about how well it serves the public interest.

The Public-Private Transportation Act is designed to facilitate private investment in public transportation facilities. It allows both solicited and unsolicited proposals, and is viewed by its supporters as a way to make needed improvements and additions to the transportation system sooner, more cheaply, and more efficiently than with public funds alone. Projects undertaken under the Public-Private Transportation Act or its predecessor include the Capital Beltway I-495 High Occupancy Toll (HOT) Lanes and Dulles Greenway in Northern Virginia and the Pocahontas Parkway (Route 895) and Route 288 in Richmond.

The number of Public-Private Transportation Act projects has expanded rapidly. Seven projects are currently underway or under contract, including the Downtown/Midtown Tunnel, a new Route 460, the Coalfields Expressway, I-95 HOT lanes, and Dulles Rail. Another 20 projects are under consideration or have been identified as concepts to be considered for Public-Private Transportation Act projects. The McDonnell Administration created an Office of Transportation Public-Private Partnerships (OTP3), directed some multimodal funds to this office, and made Public-Private Transportation Act deals worth billions of dollars.

The track record of Public-Private Transportation Act projects raises serious questions. Among other things, potential costs and liabilities to taxpayers have often been underestimated or not provided to the public. The current proposal to build a new Route 460 would pour \$1.1 billion of state funds into this project, for example, which was originally projected to cost taxpayers little or nothing. Bonds for the Pocahontas Parkway previously were downgraded and placed on a watch list by credit agencies since traffic and toll revenues have been lower than expected. In addition, tolls imposed and private sector profits can be staggering. Under the Midtown/Downtown Tunnel deal, tolls will escalate by 3.5% or more each year through 2070, state taxpayers must compensate the builder for lost revenue if a competing project is

built, and the developer can earn a hefty 13.5% profit margin. Moreover, a court recently held that the Public-Private Transportation Act unconstitutionally

delegates authority to the Department of Transportation; this case is currently pending in the Virginia Supreme Court.

Although the Public-Private Transportation Act could be an innovative tool for getting transportation projects funded and built, there are many problems with the Act and its implementation, including concerns that:

- It undermines sound transportation planning by advancing projects that are not high priorities for the public, depriving other projects of funds.
- There has been a lack of information about potential costs to taxpayers and potential risk to the state's bond rating, despite amendments to the state code aimed at addressing this.
- Opportunities for public input into the Public-Private Transportation Act process are limited, and localities

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**“Experience with Public-Private Transportation Act projects and proposals indicates that the statute is flawed and raises significant doubts about how well it serves the public interest.”**

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have not been given timely notice of key terms or an opportunity for meaningful input.

- Environmental review of proposals is circumvented or undermined, among other things due to prioritizing and advancing proposals before alternatives have been evaluated.
- Requirements for competitive bidding are inadequate, and have allowed a project proponent or bidder in the first phase of a proposal to establish a sole-source arrangement for later phases.
- It creates incentives for sprawl and driving. Most Public-Private Transportation Act projects and proposals have been for highway construction projects that would subsidize sprawl and increase motor vehicle dependence, destroying open space and increasing air and water pollution.



Traffic Cam from I-95 HOT Lanes

Author: Trip Pollard, Southern Environmental Law Center

## IMPROVE THE PUBLIC PRIVATE TRANSPORTATION ACT

The Public-Private Transportation Act could be an innovative tool for getting transportation projects funded and built. However, there are many problems with the Act and its implementation. Legislation to improve the Public-Private Transportation Act is needed. Potential measures include:

- Limiting proposals under the Public-Private Transportation Act to projects contained in state transportation plans and to projects with complete, independent environmental studies.
- Requiring greater public and local government input into proposals (such as disclosure of a cost-benefit/value for money analysis prior to procurement, and public hearings at an early stage of review and at least 30 days before a comprehensive agreement is signed).
- Requiring approval by the Commonwealth Transportation Board and/or General Assembly prior to signing a comprehensive agreement.
- Regulating the allowable rate of return.
- Redefining the process to ensure that bidding is competitive.
- Requiring evaluation of the impacts of proposed projects on land development patterns.
- Requiring projects to incorporate context sensitive design, pedestrian and bicycle facilities, and other measures to avoid and minimize adverse environmental impacts.
- Oppose additional taxpayer funding until the Public-Private Transportation Act is reformed. The General Assembly should not provide additional funds for specific projects or for the Transportation Partnership Opportunity Fund it created to support Public-Private Transportation Act projects until the Public-Private Transportation Act is reformed.

# Smart Growth

Virginia continues to grapple with the cost of sprawling development. This type of development is costly to taxpayers and has led to longer commutes, greater pollution and a loss of historic, cultural and scenic resources. The impact on family budgets from long, costly commutes has been significant and contributed to the real estate collapse in the outer suburbs.<sup>1</sup> These challenges, combined with limited federal, state and local funds, make smart growth—with its focus on location efficient development—a public policy imperative. Virginia has taken steps to better link land use and transportation in recent years. But during the last three sessions of the General

Assembly these state initiatives were weakened and the Virginia Department of Transportation has directed record funds toward mega-proj-

ects that will result in more sprawling development, rather than investing more in transit and the local street networks that will more effectively address congestion within existing communities.

Smart growth offers the opportunity to meet changing market demand, and link growth, quality of life, infrastructure savings, and economic competitiveness. The market wants more alternatives to sprawl as changing demographics—young professionals, empty nesters, retirees, and more and more families—are leading to greater demand for vibrant and walkable cities, towns, and suburbs built more like traditional towns and neighborhoods. The high quality of life of these communities, combined with greater protection for our scenic and natural beauty, enhances economic competitiveness by helping to attract and retain businesses and workers. Further, a summary of 40 years of fiscal impact studies showed that smart growth—compact and traditional cities, towns and neighborhoods—typically consumes less land, and costs much less for roads, utilities, and housing than does sprawling development.<sup>2</sup> These approaches, outlined below, will save taxpayers money, strengthen our communities, save energy, reduce traffic congestion,

and protect our farmland, health, and environment.

**Target scarce public tax dollars.** Prioritize state infrastructure funds to existing communities and designated growth areas, including economic development, transit/bike/pedestrian/local street investment, schools and water/sewer. Support the revitalization of cities, towns and older suburban communities.

**Ensure new development pays its fair share.** A fair balance must be struck between what the public taxpayer and the private developer each pay toward the cost of

infrastructure. Infrastructure necessitated by new development should not be borne by existing residents. Impact fees and proffers must not be limited to education, roads, and public safety but should also cover

a range of other community services such as parks and open space, water quality and water supply protections, libraries and other civic institutions. Any system should be constructed so that it creates the incentive to develop within designated growth areas.

**Oppose actions that would weaken local community planning.** The General Assembly should reject efforts to diminish local planning efforts, including comprehensive plans and zoning ordinances. Existing local land use authority should not be eroded further. When reviewing infrastructure projects (roads, energy or telecommunication facilities, etc.), the state should respect local planning efforts and require comprehensive environmental assessments; studies of need, alternatives and location; consultation with local governments and residents, and context sensitive design.

**Strengthen the partnership between state and local efforts to plan for the future and guide growth.** Good planning is as important to our local communities as it is to successful businesses.

- Strengthen the use of designated growth areas and service districts through cooperation with nearby towns

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**“Smart growth offers the opportunity to meet changing market demand, and link growth, quality of life, infrastructure savings, and economic competitiveness.”**

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and cities, supporting interconnected streets and walkable community designs. This will help reduce statewide infrastructure costs and traffic congestion.

- Ensure property rights while saving tax dollars on infrastructure costs through Transferrable Development Rights, Purchase of Development Rights, conservation easements and other tools.

#### **Improve data collection on land development and infrastructure costs.**

- Require local governments to estimate and report to the commonwealth their projected population and employment growth as well as the buildout potential for resi-



**Downtown Charlottesville**

dential units and commercial square footage under their existing comprehensive plan and zoning.

- Provide assistance to localities in measuring residential and commercial capacity of vacant and underutilized land if (re)developed as compact, mixed-use, walkable development, as well as in estimating infrastructure costs under both scenarios (business-as-usual and re-development).
- The state and localities should work together to compile estimates of the total maintenance and replacement needs of bridges, roads, water/sewer, schools, libraries, and other facilities.

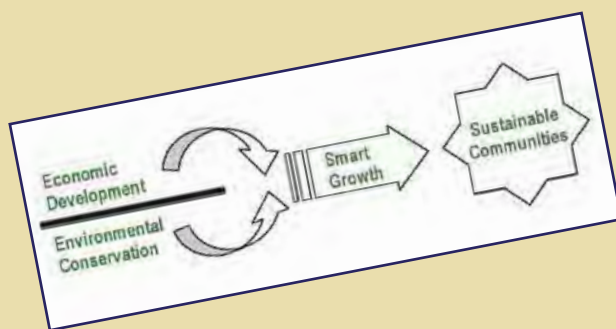
Authors: Dan Holmes, Piedmont Environmental Council; Trip Pollard, Southern Environmental Law Center; Stewart Schwartz, Coalition for Smarter Growth

## **SMART GROWTH IS A SMART IDEA**

Virginia continues to grapple with the cost of sprawling development. This type of development is costly to taxpayers and has led to longer commutes, greater pollution and a loss of historic, cultural and scenic resources. These challenges, combined with limited federal, state and local funds, make smart growth—with its focus on location efficient development—a public policy imperative.

Virginia should:

- Target scarce public tax dollars.
- Ensure new development pays its fair share.
- Oppose actions that would weaken local community planning.
- Strengthen the partnership between state and local efforts to plan for the future and guide growth.
- Improve data collection on land development and infrastructure costs.



# Confronting Climate Change

Our planet is experiencing unprecedented changes in climate and human activities are responsible. Scientists warn that we must take immediate action if we are to avoid passing a “tipping point” of no return for preventing the most extreme consequences of climate change. Our positions on issues like land use, transportation and energy provide detailed action plans to address both today’s challenges and the larger challenge of climate change. This paper addresses the broader issue of climate change and how it impacts Virginia.

The scientific consensus about climate change is overwhelming. According to NASA, the first 12 years of the 21st century have been warmer than any year of the last century with new records

continuing to be set. In 2012, the months of May, July and September were the warmest on record while July 2012 broke all records, being the warmest month since record keeping began in 1880.

As global temperatures rise, so does the frequency and severity of storms. The previous decade (2001-2010), saw the highest level of hurricane activity on record for the north atlantic, according to the World Meteorological Organization. In October 2012, Hurricane Sandy pummeled the east coast costing upwards of \$50 billion in damages. The storm, 900 miles wide, wreaked havoc from North Carolina to New York to the Great Lakes causing a record-breaking 13.88 ft storm surge in lower Manhattan - a record that has stood since 1888. While the damage to coastal Virginia was minimal, the storm reinforced concerns of the impacts of storm surges on top of already rising seas.

**Impacts to Virginia.** Areas of Virginia are feeling the impacts of climate change right now. Hampton Roads, second only to New Orleans in terms of vulnerability to sea level rise in the US, is seeing more frequent storm surges and higher tides than ever before. Norfolk, which has seen sea levels rise 14 inches in the last 80 years, regularly has roads blocked by flooding, during high tides

and heavy rainstorms. According a 2013 report from the Virginia Institute of Marine Science, seas are expected to rise another one and a half feet within the next 20-50 years. Our coastal communities will be inundated; severely threatening fisheries, tourism and many other economic sectors coastal communities rely on for their livelihood.

**Virginia Should Lead.** Given the high risk of climate change impacts on Virginia, it is imperative for us to take immediate steps to combat this problem. The announcement by Dominion Virginia Power to retire 918 MW of

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**“Hampton Roads, second only to New Orleans in terms of vulnerability to sea-level rise in the US, is seeing more frequent storm surges and higher tides than ever before.”**

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coal-fired generation by 2015 is a step in the right direction. However, Dominion Virginia Power plans to replace those facilities

primarily with natural gas plants, instead of zero emission projects like wind and solar. Virginia’s utilities and policymakers should work together to make renewable energy projects a priority for the commonwealth.

Using dirty fossil fuels to generate our electricity is only one part of the problem. Our buildings and transportation account for approximately 75 percent of our energy use. Sprawling suburban development and road-centered transportation policies force increased driving and fuel consumption, thus increasing carbon emissions. Virginia has seen one of the largest increases in carbon emissions from automobiles in the nation. Additionally, sprawl destroys farmlands, woodlands, and other open space that help store carbon.

**Federal Action.** The EPA is developing regulations to reduce carbon pollution from new and existing sources. The existing source rules are being finalized while the proposed rules for existing power plants should be released during the summer of 2014.

**State and Local Action.** Unfortunately, our elected leaders are not taking climate change seriously. Very few of the 2008 Climate Change Commission’s recommendations have been acted upon and the commission’s report

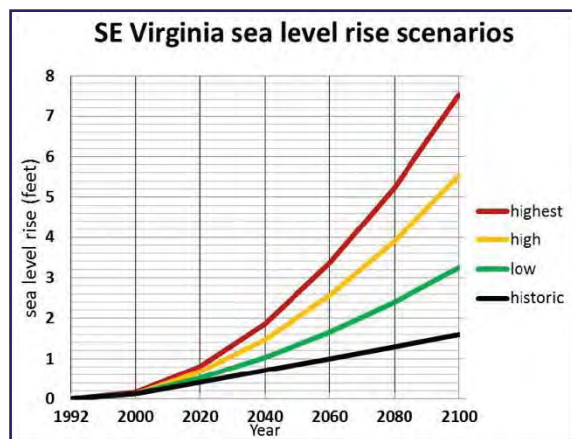
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and homepage have been removed from the state's website entirely.

Despite a lack of state leadership, there is progress being made to adapt to climate change at the local level. Tidewater localities are required to include coastal management issues in their comprehensive plans. The city of Virginia Beach requires all new buildings and renovations to build one foot above flood plains and is considering raising this restriction even higher. In Norfolk, city officials are using federal funding to upgrade stormwater drainage systems. The Department of Defense is analyzing the risks of sea level rise to coastal military installations and is making necessary changes to adapt.

With local governments grappling with how to pay for costly flood mitigation projects, state officials should pri-



### Projections from Virginia Institute of Marine Science report on recurrent coastal flooding

oritize efforts to help fund these projects as well as ways to mitigate climate change.

One such effort would be to prioritize zero-emission renewable energy projects. Offshore wind generation presents a great opportunity to generate clean energy cost-effectively while creating new Virginia-based jobs. Funding to help Virginia's community colleges establish training programs in that field would go a long way.

Authors: Chelsea Harnish, Virginia Conservation Network; Skip Stiles, Wetlands Watch

## CURBING CLIMATE CHANGE

As global temperatures rise, so does the frequency and severity of storms. Hampton Roads, second only to New Orleans in terms of vulnerability to sea-level rise in the US, is seeing more frequent storm surges and higher tides than ever before. It is time to act on climate change before it is too late. We can move Virginia in the right direction to curbing climate change impacts by:

- Expanding effective energy efficiency and conservation programs that not only offset peak demand, but also further reduce overall energy consumption.
- Promoting the responsible development of low and no-carbon renewable energy sources.
- Reforming Virginia's land use and transportation policies to promote green building codes, transit and other alternatives to driving, and more efficient, cleaner vehicles.
- Providing local governments and state agencies with the planning tools, legal authorities, and funding they need to minimize the effects of climate change on communities and infrastructure.
- Encouraging greater investment in conserving forest, agricultural, and marshlands that can act as carbon sinks.



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2. [http://www.dcr.virginia.gov/recreational\\_planning/documents/vosexecsum11.pdf](http://www.dcr.virginia.gov/recreational_planning/documents/vosexecsum11.pdf)
3. "America's Sporting Heritage: Fueling the American Economy" [online report]. Washington, DC: Congressional Sportsmen's Foundation, 2013 Economic

# Endnotes

Report. Accessed 6 May 2013. [http://www.sportsmenslink.org/uploads/page/EIR%20Final\(3\).pdf](http://www.sportsmenslink.org/uploads/page/EIR%20Final(3).pdf).

4. Code of Virginia, § 28.2-1200.1

5. Code of Virginia, § 28.2-1200

6. Kraft v. Burr, 476 S.E.2d 715, 719 (1996) (Koontz & Compton dissenting)

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## Nutrient Trading Endnotes

1. 2012 Acts of Assembly, ch. 808.

## Renewable Energy Standards Endnotes

1. [http://www.vcerc.org/VCERC\\_Final\\_Report\\_Offshore\\_Wind\\_Studies\\_Full\\_Report\\_new.pdf](http://www.vcerc.org/VCERC_Final_Report_Offshore_Wind_Studies_Full_Report_new.pdf)

2. [http://www.energy.vt.edu/Publications/Incr\\_Use\\_Renew\\_Energy\\_VA\\_rev1.pdf](http://www.energy.vt.edu/Publications/Incr_Use_Renew_Energy_VA_rev1.pdf)

## Solar Energy Endnotes

1. <http://vcnva.org/images/Clean%20Energy%20Images/CEReports/vcnrenewablesreport.pdf>

2. U.S. Solar Market Insight: 2nd Quarter 2013, Solar Energy Industries Association, <http://www.seia.org/research-resources/solar-industry-data>

3. <http://www.asrc.cestm.albany.edu/perez/2011/solval.pdf>; [http://publicservice.vermont.gov/sites/psd/files/Topics/Renewable\\_Energy/Net\\_Metering/Act%20125%20Study%2020130115%20Final.pdf](http://publicservice.vermont.gov/sites/psd/files/Topics/Renewable_Energy/Net_Metering/Act%20125%20Study%2020130115%20Final.pdf).

Putting analysis into action, Georgia Power is buying distributed solar generation at prices above its retail rates, calling it cost-effective. See <http://www.georgiapower.com/about-energy/energy-sources/solar/asi/advanced-solar-initiative.cshtml>

## Energy Planning and The Role of Energy Efficiency Endnotes

1. Va. Code § 56-597 (defining the "integrated resource plan").

2. <http://www.wiseenergyforvirginia.org/wp-content/uploads/2013/08/Changing-Course-Full-Report.pdf>.

3. Order Establishing Guidelines for Developing Integrated Resource Plans, Attachment B ("Guidelines"), PUE-2008-00099 (Dec. 23, 2008).

## Smart Growth Endnotes

1. [http://www.ceosforcities.org/work/driven\\_to\\_the\\_brink](http://www.ceosforcities.org/work/driven_to_the_brink)

2. [http://www.trb.org/Publications/Blurbs/Costs\\_of\\_Sprawl\\_2000\\_160966.aspx](http://www.trb.org/Publications/Blurbs/Costs_of_Sprawl_2000_160966.aspx) and TCRP Report 74, Costs of Sprawl—Revisited, <http://pubsindex.trb.org/view.aspx?id=540975>





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Virginia Conservation Network is a coalition of more than 160 nonprofit and community groups working together for a cleaner, healthier, environment.

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