

**Testimony on
The Maryland Clean Energy Portfolio Standard and Credit Trading
Bill (HB 1215)
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Support HB 1215

Thank you for the opportunity to appear before the committee today on behalf of the Union of Concerned Scientists (UCS). Established in 1969, UCS is an independent nonprofit alliance of 70,000 citizens and leading scientists across the country. UCS is dedicated to advancing responsible public policies in areas where science and technology play a critical role. The UCS Energy Program focuses on developing a sustainable energy system—one that is affordable and nondepletable, and that does not degrade natural systems or public health. The program analyzes, develops, and promotes innovative technology and market-based strategies to commercialize renewable energy technologies, and provides information to policymakers, the media and the public about energy's impact on public health, the environment, and the economy.

UCS has been a leading analyst of and advocate for minimum renewable energy requirements at the state and federal levels. UCS has played an active role in discussions of RPS adoption and implementation before legislatures and commissions in states where they have been enacted (including Connecticut, Maine, Massachusetts, Nevada, New Jersey, Texas and Wisconsin).

UCS supports HB 1215 and we commend Delegate Shriver, Delegate Franchot and Delegate Sher for their leadership in introducing this important legislation. The renewable energy portfolio standard (RPS) would create a fair and market-oriented mechanism to ensure that a growing percentage of Maryland's electricity is produced from renewable energy sources. It would ensure that electricity markets recognize that clean renewable electricity is worth more than polluting fossil fuel and nuclear electricity.

Since others testifying today will speak to how an RPS works and its benefits for Maryland, I will limit my testimony to concerns regarding the cost of the RPS and information about what some of the other states have done.

The Cost

Let's get right to one of the issues that often comes up when state legislatures are considering this type of legislation, which is cost. Is there a cost? Well the answer ultimately is that it depends on what you include in the analysis, but one important independent analysis recently indicated that even a very aggressive RPS would not result in significant costs to consumers and could ultimately save consumers money.

In June of last year the Energy Information Administration, the government agency that keeps the national statistics on energy and is known for its conservative outlook, analyzed a national RPS of 20% by 2020. Their conclusion was that the RPS would cost energy consumers almost nothing. The EIA report, using high estimates of renewable energy costs, shows that under a 20% RPS, total consumer energy bills would be roughly the same as business as usual through 2006 and only \$2.8 billion or 0.7% higher in 2010. By 2020, the total bill would be \$580 million lower with an RPS. The reason this occurs is that the introduction of low cost renewables into the market creates more diversity and less demand for natural gas. In other words, natural gas prices would be lower due to the RPS policy and that is what lowers the total energy bill for consumers. Over time the RPS would likely produce net savings for consumers.

The EIA projected that electricity prices in 2020 under a 20% RPS would still be nearly 7% lower than today, but electricity would be slightly higher than business as usual – about 3% higher in 2010 and 4% higher in 2020. Lower natural gas bills, however, offset these modest increases in electricity prices. Since natural gas is used extensively here in Maryland, the residents of Maryland would benefit from this supply and demand impact.

Many other reports, including our own studies and economic modeling, indicate that the savings from an RPS to consumers is even greater than what is reported in the EIA report.

Lastly, the cost analysis does not include a number of potential benefits that could help lower the true cost of the RPS even further. For example:

- By displacing fossil fuels, renewables can reduce the cost of complying with increasingly stringent environmental standards as well as lower health care costs.¹
- Our analysis does not include the potential income and rural economic development benefits that could occur from developing home-grown renewable resources instead of paying for imported fossil fuels.²

In regard to actual experience with the cost of state RPS programs there is, to my knowledge, no study that has been completed on the topic. This is likely due to the fact that the RPS is in its early stages in most of the states that have adopted the policy. One state that has moved forward aggressively to implement the RPS standard may shed some light on the issue of cost. Mr. Michael Sloan, President of Virtus Energy Research

Associates, in Austin Texas, reports that the Texas electricity industry is a \$20 billion industry and that the cost of the renewable portfolio standard program is at most \$6 million, which is about 0.03%. Mr. Sloan also reports that renewable energy credits are currently being traded at a price of one half of a cent per kWh.

Action Taken in Other States

The RPS has emerged as the leading proposal for capturing the economic, environmental and public health benefits of renewable energy technologies in an increasingly competitive marketplace. By passing this bill, Maryland would join twelve other states that have enacted renewable standards (including Arizona, Connecticut, Iowa, Maine, Massachusetts, Minnesota, New Jersey, Nevada, New Mexico, Pennsylvania, Texas and Wisconsin). The state renewables targets range from 1.1 percent of total electricity sales in Arizona (with 60% coming from solar) to 30 percent in Maine.

Nevada has the fastest growing RPS in the nation, signed into law by Governor Kenny Guinn on June 8, 2001. Nevada's RPS ramps up to 15% by 2013 starting with an ambitious 5% in 2003. The RPS also has a specific requirement that 5% of the new development will be solar. This will translate into 70 MW of solar power by 2003 and 100 MW by 2006. To date the response has been very encouraging. The two utilities in the state received 49 proposals from 38 developers for nearly 4,300 MW of renewable projects. The geothermal and biomass projects have been offered at 3.5 to 5 cents per kWh. Wind projects were at 4 to 5 cents per kWh and solar projects came in at a cost of 10 to 20 cents per kWh.

Texas, as mentioned previously, has already moved forward with implementation of its RPS. It is the most successful state initiative at this time. The Texas legislature adopted an RPS in 1999 that requires 2,000 MW of new renewable generating capacity to be installed by 2009. The RPS was signed into law by then-Governor George W. Bush and implemented by Federal Energy Regulatory Commission Chair Pat Wood, a former Texas utility regulator. The first milestone calls for 400 MW to be installed by the end of 2002. Instead, more than 800 MW was installed in 2001, largely because of the cost-effectiveness of numerous wind power projects and the potential expiration of the federal production tax credit for wind. The Texas RPS has been successful, in part, due to the availability of good renewable energy resources in the state and the inclusion of the following key provisions in the RPS legislation:

- New renewable energy requirements are high enough to trigger market growth in the state
- Requirements apply across the board to all electricity providers
- Requirements can be met using tradable renewable energy credits
- Retail providers that do not comply with the RPS target must pay significant financial penalties

Other states that should be mentioned include:

- Connecticut which also has a fast growing target, requiring that 6 percent of its electricity supply come from new renewables by 2009.
- New Jersey also has an RPS, requiring that 6.5 percent of its electricity come from non-hydro renewables by 2012, as well as a public benefits fund that would provide approximately \$34 million per year between 2000 and 2007 to develop renewable energy technologies.

State RPS laws will provide for over 7,000 megawatts (MW) of new renewable power by 2012 – enough clean power to meet the electricity needs of 3.7 million homes. This represents an increase of more than 50 percent over total US renewable capacity (excluding hydro) in 1997. Total new renewable energy production from state RPS programs will reduce as much carbon dioxide – the main greenhouse gas that causes global warming – as taking 2.6 million cars off the road or planting nearly 800 million trees.

We hope that Maryland will join with these twelve other states in an effort to improve the environment by creating a stronger market for a renewable power supply as well as create greater diversity and stability in our electricity system.

UCS strongly urges the Committee to support HB 1215. Thank you for this opportunity to provide the views of the Union of Concerned Scientists and our members on this important legislation.

¹ For example, one study has estimated that each summer in Maryland, approximately 180,000 asthma attacks and 3,900 emergency room visits are attributable to acute ozone exposure. (see Clean Air Task Force, *Out of Breath*, available online at www.pirg.org/reports/enviro/nobreath/) The Maryland Department of Environment estimates that power plants are responsible for 42 percent of the state's nitrogen oxide emissions, the limiting precursor in ozone formation.

² For example, the California Energy Commission estimates that developing 600 megawatts of new renewables using a total of \$162 million from its public benefits fund will induce \$700 million in private capital investment; create 10,000 jobs, \$400 million in wages and \$1.5 billion in gross state product from building the facilities; and result in 900 full-time jobs, \$30 million in wages, and \$130 million in gross state product each year from operating the facilities.