

April 9, 2018

VIA ELECTRONIC MAIL ONLY

Ms. Karen Sabasteanski
Virginia Department of Environmental Quality
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Richmond, VA 23218
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Re: Comments on Proposed Regulation – CO₂ Trading Program (9 VAC 5-140)

Dear Ms. Sabasteanski:

Old Dominion Electric Cooperative (“ODEC”) and the Virginia, Maryland and Delaware Association of Electric Cooperatives (“Association”) offer the following comments for consideration regarding the Proposed Regulation for establishing a CO₂ Trading Program (9 VAC 5-140-6010 through 6430) published in the *Virginia Register* on January 8, 2018 (34 Va. Reg. 924).

Introduction

ODEC is a not-for-profit generation and transmission cooperative comprised of eleven member distribution cooperatives (“Member Systems”) serving load in Virginia, Maryland, and Delaware. ODEC serves nine (9) Member Systems in Virginia which serve approximately 1.1 million retail consumers.

ODEC owns a variety of generating resources in Virginia including part ownership of a base-load nuclear plant (North Anna Power Station) and co-ownership of a base-load pulverized coal plant (Clover Power Station). In addition, ODEC is the sole owner and operator of two (2) peaking natural gas/fuel oil combustion turbine plants (Louisa & Marsh Run Generation Facilities). ODEC owns a natural gas-fired combustion turbine plant and is finalizing construction of a natural gas-fired combined cycle plant in Maryland, which is already a member of RGGI, and therefore has experience operating under RGGI. ODEC has long-term purchase contracts from solar energy resources and a landfill gas-fueled electric generation plant in Virginia. ODEC purchases the balance of its electricity needs on the wholesale market, including renewable energy resources, such as wind.

Founded in 1944, the Association is a not-for-profit trade association owned by the thirteen (13) electric distribution cooperatives in the Commonwealth of Virginia as well as one electric distribution cooperative in each of Maryland and Delaware (the “Member Systems” or

the “Cooperatives”). The Association’s Member Systems serve over 1.5 million residents of the mid-Atlantic—who are the Cooperatives’ members and owners.

The Cooperatives provide electricity to farms and businesses throughout their certificated territories, with over 90 percent of the meters serving residential member-consumers, with an average of 7 consumers per mile of line. Some of the Association’s Member Cooperatives own generation.

As member-owned electric utilities, the Cooperatives believe that safe, affordable, and reliable power is of the utmost importance to the Commonwealth of Virginia and the nation as a whole. Because of our limited baseload resources, ODEC and the Association are very concerned that any CO₂ regulation will significantly impact the cost of electricity to our member owners. A balanced, planned, thoughtful approach is important when tackling such complicated energy policy issues.

Comments

First, we would like to reiterate our support of the comments submitted by the Virginia Manufacturers Association. Specifically, their comments have outlined a number of significant concerns with respect to the following items:

- The proposed regulation would establish a CO₂ emissions cap more stringent than federal requirements;
- There has been no specific rationale or justification for proposing a regulation that is more stringent than federal requirements;
- We have an overarching concern for a variety of reasons that the proposed regulation is not cost-effective; and
- The proposed program is unnecessary considering the continuing decline in Virginia’s CO₂ emissions and the trend towards lower emissions in the future.

In the following sections, ODEC and the Association provide more specific concerns related to the potential impacts to Cooperatives and to Virginia generation sources.

The Impact on Electric Rates and Electric Bills

ODEC and the Association have significant concerns regarding the anticipated impact of this regulation on the electric bills of its ultimate consumers. In the service territories served by ODEC and Association Member Cooperatives, many consumers are having trouble paying their bills today—not in some unknown future. Even a modest increase in bills will be problematic, and larger increases in costs will turn electricity into a luxury item. We cannot allow that to happen. The Cooperatives’ service territories are, as we stated previously, predominantly rural and residential.

Based upon information released by the Virginia Economic Development Partnership, the majority of the rural areas in Virginia have seen both a declining population and sluggish to

negative economic growth. The Cooperatives are concerned about their consumers being able to afford electricity in the coming years should prices rise. Demographic data support this: the Cooperatives' service territories have high numbers of low- and middle-income families, families and seniors on fixed incomes, and families suffering from unemployment and underemployment. Additionally, the Cooperatives' service territories do not have significant non-residential loads—the service territories are over 80% residential. From 2011 to 2015, many of Virginia's rural counties experienced negative job growth. Current Department of Labor Statistics show that many of the rural counties in Virginia have significantly higher unemployment rates than the urban and suburban areas of the Commonwealth.

Historically, most Cooperatives have per capita annual incomes that fall 22% below the statewide average. For Cooperatives that are more rural, that percentage is 26%, and for three of the most rural Cooperatives, the percentage is 30% or more below the statewide average. Historically, 13% of Cooperative member-owners are over sixty-five years of age. Historically, unemployment in Cooperative territories is generally 1-4.5 percentage points above statewide unemployment rates. (*See Self-Assessment Report, Case No. PUE-2009-00121.*) Based upon the *U.S. Census 2010 Survey*, median household income in rural areas is less than half that of the suburban counties.

Our concerns over increased costs to our consumers are not simply based on future projections. *EIA Power Monthly* (Feb. 2018) indicates that there is already price pressure indicated on electric rates in RGGI participating states. This report highlights that every state that participates in RGGI had average retail rates higher than the national average and four out of five of the states with the highest average retail rates in the continental U.S. participate in RGGI.

The Cooperatives have only their ratepayers from which to recover costs; there are no separate stockholders. This fact makes the implementation of this rule all that much more troubling. This program has the potential to produce a multitude of unintended consequences, each of which could have sizable cost implications. The Cooperatives are particularly concerned about the protection of the end-users of electricity: our consumers.

Furthermore, electric distribution cooperatives receive their generated electricity by contract—whether from ODEC or via another contract. These contracts all contain clauses to directly pass on the costs of any regulatory or environmental compliance to the distribution cooperatives, which then recover that cost from their consumers through a cost recovery mechanism in electric rates. Smaller cooperatives, including those wholly dependent on investor-owned utilities for their electricity, could be hit especially hard, as the costs of the proposed regulation could be passed directly to those cooperatives and their consumers, with no mechanism for those suppliers to pass through proceeds from any sales of allowances back to the distribution cooperatives or their underlying consumers.

While it has long been accepted in the promulgation of any regulation that there are various models and economic analyses to show the cost impacts of the rule, the simple fact that this pollutant cannot be controlled with specific and defined commercially available control

devices, as is the case with other criteria and hazardous air pollutants, makes the regulation particularly problematic and fraught with the probability of unintended consequences. Additionally, there is no environmental modeling that can be run to show the projected local benefits based upon the anticipated program reductions.

The modeling for economic impact of this type of regulatory effort can be severely compromised based upon any number and variety of unknowable factors: market assumptions, regional power flows, projected resource mix, and demand considerations. In this particular case, there has been very little analysis done to support the anticipated and likely impacts on electric rates. The small amount of modeling that has been done—like all modeling—could be significantly understating the impacts of the regulation, and by the time we see the results, it will be too late to make necessary adjustments.

We also recommend a more holistic analysis be performed encompassing total energy consumption. Potentially higher future electric costs may produce unintended consequences in the form of shifts in energy usage or choice of fuel. An example would be a homeowner having an efficient electric heat pump choosing to produce some of the heat for their home via natural gas, propane, oil, or woodstove. In addition to the potential for additional emissions from these other alternate energy sources, one would also see increased CO₂ emissions from the delivery/transportation of these sources.

PJM Market and Effects of Leakage

As we have commented in previous proceedings, regulating CO₂ at the state level is not as effective as a broader regional or national approach. There are numerous unintended consequences that may arise from such a market distortion. By putting this additional burden on Virginia generation, the effect will be encouraging imports from other states, potentially requiring the construction of additional transmission infrastructure to maintain reliability. An example of this is already occurring where the RGGI regulation in Maryland has contributed to the construction of new transmission lines to facilitate the import of power from adjoining non-RGGI states.

PJM, as a regional transmission organization, allows for cost-effective exchange of electricity throughout its territory, which includes the majority of Virginia. Inconsistent state CO₂ policies among states within a regional power market such as PJM also create distortions in generation dispatch that can increase, rather than decrease, regional emissions. Currently, only two of the thirteen PJM states participate in RGGI. For example, the cost of CO₂ allowances from the RGGI program in one state can discourage a low-emitting in-state natural gas plant from operating, only to make way for imported coal power from a neighboring state simply because the out-of-state plants do not incur CO₂ cost. While these shifts in dispatch may reduce in-state emissions, they could easily *increase* the net regional emissions including the non-CO₂ regulated states.

If the regulation is to move forward, we also strongly recommend adding a provision for an analysis of trends in imports in Virginia once the program has been implemented. If there is indeed a significant increase in imports, Virginia should have the ability to make programmatic

adjustments to scale back the regulatory requirements for in-state generators to deter the import of out of state generation. The Air Pollution Control Board should consider any number of “safety valve” measures—for consumer protection from price increases, for reliability of the electricity system, and for imports from out-of-state.

The additional burden of this program could result in premature retirement of coal facilities, such as the Clover Power Station. These plants were designed, built and permitted in compliance with federal and state regulations to meet the long-term electricity needs of our consumers. The implementation of this proposed regulation may reduce the remaining useful life of these assets which are still being paid for by our consumers. At the very least, if Virginia is going to implement this program, Virginia needs to develop a mechanism to compensate consumer-funded prematurely-retiring coal generation. One possible mechanism would be to carve-out allocations for retired consumer-funded generation for a significant number of years after their retirement. This type of solution would also remove a barrier to the closure of consumer-funded coal generation, by providing allocated allowance revenue to offset the stranded costs paid for by consumers. Other mechanisms could also be considered, and make more sense, but those would likely require legislation to implement.

Those renewable generation resources owned directly by Cooperatives should continue to be counted as renewable resources and excluded from the proposed regulation. This includes not only solar PV projects, of course, but also the wood waste biomass plant in Halifax County serving members of Northern Virginia Electric Cooperative.

Consignment Auction Implementation

ODEC and the Association have significant concerns about the way in which the consignment auction approach will be implemented. While it is true that some form of consignment auctions have been used for other allowance programs, this is a wholly new concept to enable Virginia to “link” to RGGI. We do not believe that the actual mechanisms that will have to be put in place to track the allowances, as well as the increased burden on Virginia DEQ, have been fully factored into the cost of the program.

Additionally, administrative costs have not been fully analyzed. Given that Virginia is not joining RGGI, but merely “linking” to it, we are unsure how the administration of the consignment would be paid for. DEQ has no mechanism to recover its own administrative costs for this program.

Implications for Cooperatives Receiving Auction Proceeds

ODEC is a not-for-profit cooperative, and as such is exempt from federal income taxes as long as it receives no more than 15% of its revenue from non-members. This rule about non-member income applies to all types of cooperatives, including all of the electric distribution cooperatives in Virginia. Cooperatively-organized businesses are designed, from their foundation, to serve their members, who are also their customers. Therefore, ODEC has concerns about the potential accounting and tax impacts of receiving “revenue” in the form of proceeds from the RGGI auctions. This concern would apply to any cooperatively-organized entity receiving auction proceed revenues. To the extent that the regulation maintains the

concept of a consignment auction, consideration should be given to this unintended consequence. One potential solution could be to allow cooperatives to simply offset any allowance requirement with an equal amount of allocated allowances without the requirement to auction the allowances. This is but one example of unintended consequences that warrant a further analysis of the proposed regulation.

Initial Virginia CO₂ Budget

ODEC and the Association believe that, based upon information from a variety of sources, Virginia has seen an overall downward trend in energy consumption and overall CO₂ emissions. Virginia's energy resource mix is evolving, with more investments in clean energy resources and renewables, regardless of CO₂ regulation.

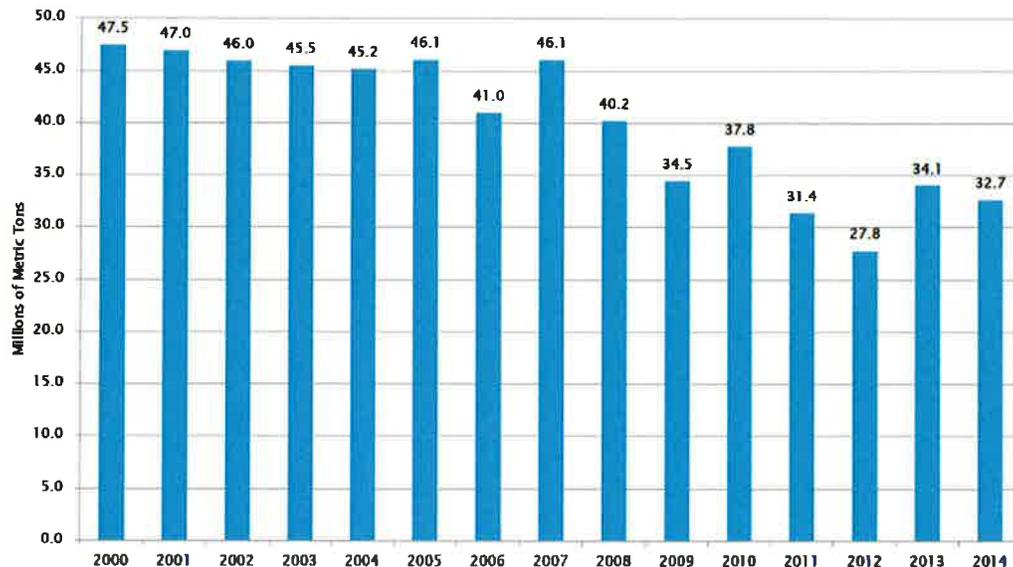
Information from the DOE's Energy Information Administration demonstrates that Virginia has already achieved significant reductions in CO₂ emissions. As reported in January 2018 in the EIA document *Energy-Related Carbon Dioxide Emissions by State, 2000-2015*, Virginia has reduced its overall CO₂ emissions from all energy-related sources from 123.1 million metric tons in 2000 to 103.0 million metric tons in 2015. That 16.3% reduction ranks Virginia as the 16th highest percentage reduction among all states and significantly higher than the national average reduction of 10.3%. This includes all energy related sources of CO₂ emissions including utility generation, transportation, industrial, commercial and residential sources. Even more impressive is the reduction in average CO₂ emissions per person where Virginia reduced its average emissions per person by 28.9%, ranking it the ninth highest reduction in the nation and significantly better than the national average reduction of 21.1%.

Additionally, *Virginia Performs* reports that the statistics on energy consumption are as follows:

Virginia's per capita energy use fell from a recent peak of 346 million BTUs per person in 2005 to 292 million BTUs in 2013 and 2014. There have been some fluctuations along the way, including drops caused by decreased economic activity during the years of the Great Recession (2007-2009), as well as minor ticks upward in both 2010 and 2013. Virginia's 2014 rate is lower than the national average of 309 million BTUs and ranked Virginia 21st among US states for energy consumption.

Should Virginia move forward with implementation of this program, we believe that the current trends support the initial budget being set at 34 million tons. While the trend has been declining over the years as shown on the graph below, since 2014, there has been a great deal of investment in new clean combined cycle generation which would be subject to this program. Virginia should be allowed to enter the RGGI program with a budget that is fair to Virginia given the current generation resources. Even with the budget set at 34 million tons, with the new generation assets, the goal will still be challenging.

VIRGINIA POWER SECTOR CO₂ EMISSIONS



Source: Virginia DEQ Presentation to Executive Order 57 Workgroup

Also, given that the Virginia generators are just now entering the RGGI-linked program, the banking adjustments that have been calculated by RGGI and are being proposed to be applied to subsequent years, should not be applied to the Virginia budget. These banking adjustments are based on participants *outside* of Virginia banking more allowances than anticipated, and not the actions of any generators in Virginia. Such an adjustment should only be applied to existing RGGI participants.

In addition, ODEC and the Association feel that there should be consideration given to a reliability and resiliency safety valve. Such a mechanism would recognize that overreliance on intermittent generation or a single fuel such as natural gas which is not easily storable, may negatively impact reliability and resilience. Analyses should be performed to assure that resiliency is maintained and that critical generation resources are not retired because of the impacts of this regulation. In the case where retirement of critical resources is likely, adjustments to the allowance allocations should be contemplated.

Allocation of CO₂ Allowances

Despite our serious concerns with the potential impacts of this regulation, if the regulation were to be implemented, we would like to include our general support for the provision establishing that 95% of the budget will be allocated to the generators. Particularly for the Cooperatives, revenues from the allocations will go directly to consumers. This is a critical means to reduce the net cost impact on electric consumers. Setting a price on CO₂ emissions as this program does, is enough incentive for all sectors to seek ways to reduce emissions. Even when allocated allowances, utilities will still be incited to pursue low or non-emitting resources and energy efficiency measures. Not having allowances granted to such sources and forcing electric ratepayers to foot the bill for CO₂ emissions would be a significant

cost impact and can be at least somewhat mitigated by allocated allowances to generators as proposed.

As stated previously, any utility with a wholesale power contract could be adversely affected by the implementation of a system where their consumers end up paying for the costs of CO₂ emissions and receive nothing in return. This could be resolved by flowing auction revenues through applicable FERC ratemaking mechanisms using FERC Form 1 data. However, this difference, and the complexity of DEQ involving itself in a mechanism of wholesale ratemaking, should merely serve to reiterate our mutual concerns regarding the complexity and unintended consequences of the proposed regulation.

We further would like to provide comment on the conditional allocation methodology. We recommend allocation based on emissions, not megawatts generated. Incumbent utilities have made significant investments under the existing regulatory compact to provide power economically and reliably to meet retail loads. Because of these significant investments, there should be an appreciation for the value associated with these investments in electric generating plants. The conditional allocations being allocated on an emissions basis will serve to provide a "glide path" for the existing resources to continue to operate within their remaining useful life, rather than having significant stranded resources which will directly impact our consumers and what they pay for electricity. Coal generators would still be incented to operate as efficiently as they can since the allowance price will set the value of each ton of CO₂ emitted irrespective of who is given the allowances.

Conclusion

In conclusion, ODEC and the Association would like to stress that this is a very complex issue. Virginia should be extremely cautious in promulgating environmental regulations that will significantly change the energy policy in Virginia without truly accomplishing the goal of reducing CO₂ emissions.

Thank you for consideration of our comments.

Sincerely,



Peter F. Gallini
Vice President, Power Supply



Samuel R. Brumberg
Association Counsel