

Support SB 192 (Subramanyam) and HB 116 (Sullivan)

Amends sales and use tax exemption for data centers to require meeting certain energy efficiency standards.

SB 192 and HB 116 incentivize more energy efficient data centers by conditioning the receipt of state tax credits on data center operators meeting high standards for energy efficiency and renewable energy procurement, and on not using highly-polluting diesel fuel for on-site power generation. Data centers would need to achieve power usage efficiency (PUE) scores of 1.2 or better, a rigorous but achievable score. Beginning in 2027, at least 90% of their energy would have to come from carbon-free renewable energy sources.

Background

With the acceleration of computing and cooling demands from Artificial Intelligence and other rapidly-changing technologies, data centers will require far more energy, exacerbating pressure on the grid. One data center can equal the power consumption of 50,000 homes.

Currently, there are no state provisions to ensure data centers are built and operated to meaningful levels of energy efficiency. Given that Dominion and PJM have stated that new demand for energy in Virginia is being driven by growth in the data center industry, it makes sense to insist that operators who want state tax incentives should meet the highest standards for efficiency.

The data center industry in Virginia achieved a peak metered load of almost 2.8 GW in 2022 and is expected to grow to over 13 GW by 2038 (which would be the equivalent of 8 North Anna nuclear facilities). Now the industry already consumes a stunning 22% of Dominion Virginia Energy's total electric supply in Virginia! It is therefore imperative to reduce projected demand for energy.

Dominion's IRP outlines that the energy company is facing headwinds to deliver a cleaner grid and is slated to increasingly rely on fossil fuels to meet the demand of data center growth. Specifically, it has already revived pre-pandemic plans to build a methane gas peaker plant in Chesterfield County to meet growing grid demand in the coming years. This could result in keeping other gas-fired plants and 3 coal-fired plants running with obvious increases in carbon. In fact, Dominion has projected a doubling of greenhouse gas emissions to 36,000,000 metric tons by 2048, attributed to massive growth in data centers and the requisite need for new energy capacity. And, many proposed data centers are not yet part of those projections.



Connor Kish
Director, Virginia Chapter
100 West Franklin Street, Mezzanine
Richmond, Virginia 23220
connor.kish@sierraclub.org
804.895.4730 (m)

Support SB 192 (Subramanyam) and HB 116 (Sullivan)

Amends sales and use tax exemption for data centers to require meeting certain energy efficiency standards.

Power Usage Effectiveness (PUE) is a well-established industry standard¹ that measures data center energy performance. It is the ratio of the total amount of power used by a computer data center facility to the power delivered to computing equipment. This bill requires that data centers meet a PUE of 1.2 in order to receive the benefit of the data center sales and use tax exemption. Google and other leading tech companies already achieve this metric in their data centers, but many other operators do not.

The legislation also requires that data center operators who want Virginia tax incentives procure carbon-free renewable energy and associated renewable energy certificates to meet 90 percent of their electricity requirements on a 24/7 basis by January 1, 2027. This goal is consistent with the commitments of leading tech companies, and the 3-year lead time gives the market and grid operators time to prepare.

Finally, SB 192/HB 116 does not allow the use of diesel fuel for on-site power generation at qualifying data centers. Diesel exhaust emits black carbon particulate, and has been identified as toxic and a carbon emitter. Diesel particulate matter is well known to be associated with serious public health issues including asthma, heart and lung disease, cancer and premature mortality and obviously should be avoided.

The state data center sales and use exemption is now approaching \$1 Billion and is expected to increase significantly as more data centers go online. This bill incorporates much needed protections for taxpayers who no longer are willing to subsidize this industry to pollute.

This bill puts in place incentives to avoid increases in carbon emissions and reduces the taxpayer burden of paying for both future costs of carbon reductions and the state incentives.

By tying energy efficiency to state subsidies, Virginia is more likely to meet the state Virginia Clean Economy Act goal of 73% clean energy by 2035 and 100% clean energy by 2045.

1

<https://www.nrel.gov/computational-science/measuring-efficiency-pue.html#:~:text=PUE%20is%20the%20ratio%20of,center%20and%20dedicated%20mechanical%20room.>



Connor Kish
Director, Virginia Chapter
100 West Franklin Street, Mezzanine
Richmond, Virginia 23220
connor.kish@sierraclub.org
804.895.4730 (m)
