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Richmond, VA 23219
804.464.VAEE

Secretary of Natural Resources
1111 East Broad Street
Richmond, Virginia 23219

April 28, 2017

Dear Executive Order 57 Work Group Members:

I am writing today on behalf of the Virginia Energy Efficiency Council to provide comments on opportunities the Commonwealth can pursue to reduce overall electricity consumption and carbon emissions for Virginians.

As you know, Virginians are already feeling the effects of climate change, including sea level rise, retreating shorelines, droughts, and more frequent, intense storm events and above average temperatures. We applaud the Commonwealth's efforts to address this important issue via the EO 57 working group. Energy efficiency technologies can offer low to no-cost solutions to reducing Virginia's carbon emissions and contribution to global climate change. Therefore, the Virginia Energy Efficiency Council recommends the inclusion of energy efficiency as a viable option for reducing carbon pollution from power plants.

The Virginia Energy Efficiency Council (VAEEC) is a 501c3 organization, headquartered in Richmond, that provides a platform for stakeholder engagement while assessing and supporting programs, innovation, best practices, and policies that advance energy efficiency in Virginia. We work on engaging stakeholders to identify barriers and opportunities to energy efficiency as a resource in Virginia, and on developing a strong, fact-based and balanced industry voice before local, state and national policymakers and regulators. Our diverse group of 80+ members include Fortune 500 companies, nonprofits, universities, local governments, state agencies, utilities and individuals. The VAEEC's goal is to make sure energy efficiency is recognized as an integral part of Virginia's economy and clean energy future.

The VAEEC is currently focused on several program areas which reflect our role in advancing innovative and effective strategies in the energy efficiency field: supporting smart energy efficiency policies and programs through the Governor's Executive Committee on Energy Efficiency, or GEC; Property Assessed Clean Energy financing, or PACE; and pushing for more rigorous energy codes in the Virginia Uniform Statewide Building Code, or USBC. As a part of GEC, the VAEEC and its members work on conducting outreach to local governments about the value in reducing energy consumption, developing a single-brand strategy for marketing and outreach of energy efficiency programs and showcasing champions of energy efficiency. Moreover, the VAEEC is committed to accelerating the implementation and utilization of PACE throughout Virginia. During the current building codes cycle update, we are pushing for mechanical testing to ensure that Virginia homes are not costing new homeowners more than



they should be. Additional program areas include supporting utility energy efficiency programs, benchmarking, and data access.

Governor's Executive Committee of Energy Efficiency: reducing our energy consumption

As part of the GEC, the VAEEC is working to identify strategies to reduce Virginia's electricity consumption by 10% in 2020. This number equates to a 10.7 M MWh reduction in electricity consumption in Virginia buildings compared to the 2006 base year. According to the U.S. Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator, 10.7 M MWh is equal to reducing 7,519,703 metric tons of carbon dioxide or the carbon dioxide emissions from 794,055 homes' energy use for a year.

Our recommendation with respect to the GEC's 10% electricity conservation goal is to continue with this reduction goal beyond 2020.

Property Assessed Clean Energy: the future of sustainably financing

The VAEEC is focused on advancing the development and utilization of PACE in localities across the Commonwealth. PACE is a financing mechanism for energy efficiency, renewable energy, and water conservation upgrades for new and existing buildings. In Virginia, all privately-owned, commercial, nonprofit, and multifamily buildings are eligible. Localities develop their own PACE program, and private lenders make the loan, which covers 100% of a project's cost and is repaid through a special assessment added to the property's real estate tax bill. With term periods of 20+ years, PACE offers low annual payments with immediate positive cash flow.

Eligible PACE projects must reduce energy consumption or generate energy. These upgrades include lighting, roofing, HVAC equipment, and solar panels. Through PACE, property owners are able to get the funding necessary for building upgrades, and the environmentally friendly improvements help reduce energy consumption and emissions. In fact, in Ann Arbor, MI, PACE is being used as a tool to help the City reach its goal of reducing community greenhouse gas emissions by 90% by 2050. Moreover, the Climate Action Business Association, or CABA, which consists of local small business leaders, is supportive of PACE financing as a way to reduce climate effects from carbon pollution and strengthen resiliency.

Currently, Arlington County is the only jurisdiction actively developing a PACE program in Virginia. However, several other localities are interested in PACE financing as well.

Additionally, the VAEEC is part of the Mid-Atlantic PACE Alliance (MAPA), which is the result of an U.S. Department of Energy grant to support the development, implementation, and utilization of Commercial PACE programs throughout Maryland, Virginia, and Washington, D.C.



The VAEEC's top recommendation with regards to PACE financing is to continue to support the implementation of PACE programs throughout the Commonwealth.

Building Codes: building a more efficient Virginia

The VAEEC was afforded the opportunity to present to the EO57 workgroup in January specifically on the role building codes can play in mitigating climate change. As mentioned in our presentation, buildings consume more than 40% of the energy we use annually and about 70% of the electricity produced, making buildings responsible for nearly 40% of the carbon pollution emitted. If Virginia adopted the 2015 model code as is, with no alterations, Virginia homeowners would save \$2.5 billion between 2010-2040 and avoid nearly 16 million metric tons of carbon emissions.

Our top recommendations from that presentation remain:

- 1. Provide guidance to DEQ and DMME staff on participating in the Virginia code update process*
- 2. Direct DHCD and DMME/ DEQ to enter into MOU(s) for information sharing during the update process*
- 3. Draft legislation to create an ex-officio seat for DMME on the Board of Housing and Community Development*

We also encourage the EO57 workgroup, or the Secretariats and state agencies represented by members of the workgroup, to become more actively engaged in the utility proceedings before the State Corporation Commission. These proceedings provide an opportunity to interject different perspectives into these conversations including from those who are charged with protecting consumers from paying higher-than necessary energy bills and agencies tracking our air quality and/or progress toward meeting Virginia's voluntary energy reduction goal.

Energy efficiency is one of the most practical, cost-effective tools to reduce our energy consumption and dependency on fossil fuels, which in turn, helps mitigate climate change. As the voice of the energy efficiency industry in Virginia, VAEEC strongly recommends that energy efficiency be included as part of the Commonwealth's compliance plan to reduce carbon pollution from electric power generation facilities.

Sincerely,

A handwritten signature in black ink that reads 'Chelsea Harnish'.

Chelsea Harnish
Executive Director



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Appendix: Citations

Change is in the Air: How States Can Harness Energy Efficiency to Strengthen the Economy and Reduce Pollution. Report no. E1401. American Council for an Energy-Efficient Economy.

Grantham Research Institute, Imperial College, and Duncan Clark. "What's energy efficiency and how much can it help cut emissions?" *The Guardian*, June 8, 2012.

"Greenhouse Gas Equivalencies Calculator." Energy and the Environment. January 24, 2017. Accessed April 13, 2017. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

Pollari, Kai. "How ABB's energy efficiency expertise is helping the UN to mitigate climate change." *ABB* (web log), November 6, 2016.

Role of Energy Efficiency in Climate Policy. Report. American Council for an Energy-Efficient Economy. May 2008.

Ürge-Vorsatz, D., and B. Metz. "Energy efficiency: how far does it get us in controlling climate change?" *Energy Efficiency* 2, no. 2 (May 2009): 87-94. doi:10.1007/s12053-009-9049-7.

"Virginia Clean Power Plan." American Council for an Energy-Efficiency Economy, Alliance for Industrial Efficiency, Alliance to Save Energy, Ceres, Environmental Defense Fund, Heat is Power, Institute for Industrial Productivity, Institute for Market Transformation, MCA, Mechanical Contractors Association of America, Natural Resources Defense Council, Ohio Environmental Council, Sheet Metal & Air Conditioning Contractors' National Association, Sheet Metal, Air, Rail & Transportation, and Velia to Governor Terry McAuliffe. September 11, 2015. Richmond, VIRGINIA.

"What is Pollution?" December 24, 2016. Accessed April 13, 2017. <http://www.conserve-energy-future.com/PollutionTypes.php>.

Worrell, Ernst, Lenny Bernstein, Joyashree Roy, Lynn Price, and Jochen Harnisch. "Industrial energy efficiency and climate change mitigation." *Energy Efficiency* 2, no. 109 (May 2009). doi:10.1007/s12053-008-9032-8.