

Dear Prince George's County Board of Education

My name is Joseph Jakuta and I am the lead volunteer with the Sierra Club Climate Parents campaign in Prince George's County. Climate Parents is a campaign that is calling for 100% Clean Energy Schools throughout the nation. I reside in Mount Rainier, MD, where I have for 10 years and have lived in Prince George's County for 17 years. I am a parent of a kindergartener at Robert Goddard Montessori School and will have a second child there next fall.

We want to thank you for the opportunity to provide testimony about the FY2022-27 six-year Capital Improvement Plans (CIP). It is important for these short- and long-term capital decisions to consider the environmental health of the students in an equitable fashion, the long term climate impact and resilience, and ways to improve the financial well being of the school system.

It is particularly great to see the new five point prioritization structure with healthy buildings called out as a specific area to examine. And not just that, it is the highest priority area. This is a very important change and I am glad that PGCPS is making this a priority. Healthy buildings can improve learning comprehension and improve the health of the students by reducing mold and indoor air pollution. Many efforts to improve building health also reduce energy consumption and climate emissions as well. And most importantly, this is a crucial step to making our buildings safer in response to Covid-19.

In the final plan, there should be three minor improvements made to the section on healthy buildings. Firstly, replacement of fossil fuel burning heating and cooking equipment with electric options should be added as an area of healthy buildings, since these produce on-site emissions that can impact students' learning and health. Secondly, replacement of water systems with ones that provide drinkable in all schools is also a necessary consideration.

It is also great to see the inclusion of Safe Passage to Schools (SPS) as an area of priority. Safe access to schools can allow students and teachers to more easily travel to school safely using healthier and non-polluting alternatives, such as walking and bicycling, and is an important area of improvement for the well being of the students and the future health of the environment.

I know upfront costs related to creating healthy buildings can be daunting, especially given current budget constraints, but there are options available to help achieve savings with lower upfront costs to the school system. Energy Service Companies (ESCOs) are companies that set up a public private partnership with organizations, such as schools, to audit and monitor energy use and perform retrofits and upgrades allowing the organization to amortize the costs of the projects overtime while saving money on reduced energy costs. For example, Hillsborough County Schools in Florida, a district slightly larger than Prince George's County partnered with two companies to invest \$200 million dollars in energy improvements that over time are expected to save the school

district \$850 million dollars.¹ Kern County Schools in California also recently partnered with a company to invest in onsite solar generation that will save the school system \$80 million over 25 years with no upfront costs, and this was only on 27 buildings, whereas we have hundreds.²

One specific aspect of having HVAC systems that fit with the need for healthy buildings is replacement with Dedicated Outdoor Air Systems (DOAS). DOAS units bring fresh outside air into interior spaces independently from heating or cooling efforts. Addressing ventilation and air conditioning separately can save fan energy while improving indoor air quality.³ Specifically these systems:

- Improve indoor air quality by removing contaminants from outdoor air and increasing fresh air, which has been found to be correlated with improved test scores.^{4,5,6}
- DOAS units are effective dehumidifiers, and they help prevent moisture-related problems like sick building syndrome and mold growth, which some evidence finds to be associated with neurological problems.⁷
- Decoupling ventilation from air heating and cooling can also lead to energy savings.⁸

These upgrades are also important to the climate. Despite the reductions in greenhouse gas emissions from decreased activity due to Covid, a new record level of atmospheric CO₂ concentrations was just recorded.⁹ In order to face the climate emergency that we are in we need to stop producing emissions by 2050 according to international experts.¹⁰ The upgrades and replacements going into the CIP will need to begin now if our schools will be emission free to make these goals.

In the short term HVAC improvements are an additional step that is needed to reduce the spread of Covid-19. American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is the organization with the greatest expertise on HVAC systems. In response to Covid-19 they released specific improvements that should be made to reduce the chances of the spread of Covid-19 from the standpoint of buildings, which Prince George's County should invest in. Some of

1

<https://www.prnewswire.com/news-releases/minimise-usa-and-generate-capital-deliver-1-7-million-to-hillsborough-county-public-schools-300761722.html>

2

<https://newsroom.sunpower.com/2015-05-28-Moving-to-the-Head-of-the-Class-Kern-High-School-District-Selects-SunPower-to-Deliver-22-Megawatts-of-Solar-Power-Systems-at-27-Sites>

³ <http://www.energymanagertoday.com/doas-a-new-approach-to-hvac-0124935/>

⁴ <https://pubmed.ncbi.nlm.nih.gov/21029182/>

⁵ <https://www.vox.com/2020/1/8/21051869/indoor-air-pollution-student-achievement>

⁶ <https://iaqscience.lbl.gov/sites/default/files/performance-2.pdf>

⁷ <https://pubmed.ncbi.nlm.nih.gov/15259424/>

⁸ http://doas.psu.edu/KC_03_7_1.pdf

9

<https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2020/06/05/the-energy-202-how-carbon-levels-hit-a-record-high-even-as-emissions-fell-during-coronavirus-pandemic/5ed91ba688e0fa32f82327d2>

¹⁰ <https://www.ipcc.ch/sr15/>

the recommendations are as follows (more information is available at <http://www.ashrae.org/technical-resources/resources>):

- Increase outdoor air ventilation
- Disable demand-controlled ventilation (DCV)
- Further open minimum outdoor air dampers
- Improve central air filtration
- Keep systems running longer hours, if possible 24/7
- Use portable room air cleaners with HEPA filters.

This ask is only one step. In the long term Prince George's County should commit to 100% Clean Energy Schools. In the long term we do need to move towards an education infrastructure that does not expose our children to air pollution and does not contribute to climate change. We have petition calling for this, specifically for the Board of Education to:

- Adopt a resolution setting a date to achieve 100% Clean Energy Schools.
- Institute a focus workgroup of government officials, community leaders, experts, staff, and students to Climate Change Action Plan to achieve 100% Clean Energy schools.

If you have any questions, do not hesitate to contact me. I can be reached at climateparentsPGMD@gmail.com or by phone at 512-203-4538.

Thank You,

A handwritten signature in cursive script, appearing to read "Joseph Jakuta".

Joseph Jakuta
Climate Parents of Prince George's County