



## **PGCPS Board of Education Climate Change Action Plan Focus Work Group**

November 3, 2021 3:30pm-5:00pm

### **Topic: Electricity Procurement and Continuation of Building Discussion**

#### **Draft Narrative Summary**

Board Member Boozer-Strother called the meeting to order. She then called for adoption of the meeting agenda. Joseph Jakuta made a motion and Mr. David Hill seconded it. The agenda was approved without objections. She then called for adoption of the October 20, 2021 meeting minutes. Jamee Alston made a motion and Mary Lehman seconded it. The minutes were approved without objections.

Board Member Boozer-Strother reminded the public of the availability of our founding document. She also discussed the publication of the blog entry on our work to date that was published by Aspen Institute's K-12 Climate Action (<https://k12climateaction.org/blog/community-engagement-is-necessary-to-decarbonize-schools>).

Mr. Jakuta discussed the upcoming meeting on Transportation that is scheduled for November 17, 2021, though topics are subject to slight amendment. He also mentioned that if any questions are still pending to send them along so we can get them answered prior to the December 15 meeting. Mr. Jakuta also stated that the County Council's Climate Action Commission has released the action plan for the rest of county activities is out for public comment <https://www.princegeorgescountymd.gov/3748/Climate-Change>. He also stressed the benefits of having our plan fit well with theirs to ease implementation.

Board Member Boozer-Strother seconded what Mr. Jakuta stated concerning the action plan and for all of the workgroup members to work in their community to make the plan successful since success breeds success.

Ms. Alston began the discussion of energy procurement. PGCPS purchases their electricity, as well as natural gas, through Baltimore Regional Cooperative Purchasing Committee (BRPC),

which has a board that oversees all aspects of energy purchasing for the school systems. PGCPS last signed on in September 2019.

Concerning solar, PGCPS has partnered with Prince George's Office of Sustainability, PHI, and Exelon in 2016 to make agreements to install three solar arrays at local schools (Glenarden Woods Elementary, Greenbelt Middle, Oxon Hill High School) which will be about 1 MW.

Michael Harris then provided a presentation on solar installation potential in PGCPS. He discussed the current goals of the PGCPS Climate Action Plan in regards to solar installations. There are numerous jobs in solar installation and there are many environmental benefits as well. Maryland currently has 1000 MW of solar and about 60% is utility grade. He then discussed recommendations to include in an action plan by focusing on recent studies, determining the extent of deployment, looking at the physical data of PGCPS sites, examining the PGCPS master plan, maximizing the potential, identifying funding sources, and then identifying economic opportunities. One point was that solar installations don't make sense if they are under 100 kw. He then provided recommendations including doing some onsite solar, but also using larger collaborative projects and doing purchases from utility scale projects, and to manage facility performance to reduce demand.

Jamee Alston then described some of the work that has recently been done by Buildings Services. She started by reiterating some of her earlier points and then described the dashboard that is available to help with learning and also included data from geothermal and other projects. There are also numerous LED lighting projects in the system funded through the EmPOWER rebate program, 51 in total, 28 of which were full retrofit projects. The LED lighting projects also lead to a safer work environment. The lighting and other projects have saved just over 15,000 mwh of energy. Facilities management has a facility level system for management and dashboards for several schools. Director Sam Stefanelli mentioned that the approach taken at Glenarden Woods is the preferable way to install solar, as part of a full retrofit project, rather than piecemeal addition.

Mr. Harris then talked about the idea of solar canopies being another option when a full retrofit isn't expected in the near term. He then described the process Bowie State undertook to install their solar canopies, one of which occurred through the Exelon project.

Reilly Loveland mentioned the use of the tool PVWatts to understand site solar potential <https://pvwatts.nrel.gov/>. Michael did mention the benefits of solar canopies to avoid the issues of roofs. Ms. Alston asked how long it took to undertake the project.

Donald Goldberg then asked about the possibility of more collaboration between Maryland school districts to learn of the successes and challenges other school districts have. Ms. Alston discussed the collaboration that occurs through conversations with other schools and colleagues. She also mentioned it is challenging with such a small staff doing this work in the system. Ms. Alston then mentioned that there is a need for more groups like BRC-PC that can collaboratively complete some of the tasks as well as save funding. She also discussed that there are companies that are wanting to do projects in the schools.

Donald Goldberg then introduced Reilly Loveland and the topic of Energy Service Companies (ESCOs) Ms. Loveland mentioned in particular that there is no silver bullet for retrofits. The best ability to save is on older buildings and the LED replacements are the best option terms of a single project. The Better Buildings Program is a great resource for building retrofits and that Generation180 is a good solar resource. The north star for projects should be in looking at how much carbon or energy you want to reduce through the project. ESCOs are an interesting approach since the models have been improved and can assist especially if staff resources are not available. She discussed a school system that used programmable thermostats, which is a simpler solution, but if used correctly can lead to large savings. Consideration of exchanging boilers for heat pumps and roof retrofits that include insulation should be made with as much lead time as possible, for example if you know that a boiler is going to go out in five years you have five years to plan for the upgrade that makes the most sense.

Mr. Goldberg asked about the need for less retrofits when LEDs are installed. Director Stefanelli said custodians were spending 200 hours per week just replacing light bulbs, and that nearly goes away when LEDs are used. He had a particular example of Wye Highschool with a gym with 80 foot ceilings that required scaffolding to be built to replace the lights and now . Another benefit is the directionality of the LEDs, which limits the bleeding into nearby property.

Mr. Jakuta asked if BRCPC takes into consideration renewables in their decisions and whether the PSC plays a role in their decisions. Ms. Alston said that 2020 BRCPC report is available and they do consider renewables and have an annual ([https://baltometro.org/sites/default/files/bmc\\_documents/publications/purchasing/BMCBRCPCReport2020IIIPDF.pdf](https://baltometro.org/sites/default/files/bmc_documents/publications/purchasing/BMCBRCPCReport2020IIIPDF.pdf)). She is unaware if the PSC has any role in BRCPC's decisions.

Mr. Jakuta then relayed Delegate Lehman's question concerning grants. Bowie State has used MEA grants that are first come first served and can involve complicated paperwork, but PGCPs has not pursued that path. The ACF team may be examining the use of grants to get the new buildings solar ready. Director Stefanelli also said that there are tax incentives available to private individuals, but since PGCPs does not pay taxes they cannot take advantage of them, but there is a possibility of the P3 program being an avenue to take advantage of this that needs to be reviewed.

Mr. Jakuta asked about the issue of Demand Response, and whether selling of Solar RECs could be used to help with budgeting. Ms. Alston said about 15 high schools may be able to be used for curtailment, but there is a need to determine if schools can be available for curtailment and whether there are issues with meeting health and other requirements for the union staff. Concerning Solar RECs she stated that it still needs to be determined.

Ms. Loveland then discussed the state of battery backup power. To begin, school districts should begin a list of what is needed for critical loads. She can provide a list. Battery backup is still very expensive and they aren't in many cases certified for backup purposes so they still need to be coupled with a generator. Electrification can also make it harder, especially in regards to electric heating. This could also change in the next five years. Director Stefanelli mentioned that the current battery backup can last four to six hours, which is fine for lighting and

has been used as such in PGCPs, but they are not yet good enough for a snow storm. Ms. Holton added to the chat that a new Glenridge Area MS the requirement is for 350kW.

Mr. Goldberg brought up the idea of using electric school buses as battery backups. Director Stefanelli then brought up the school systems that use the school buses for backup power. Director Stefanelli also discussed the idea of being able to sell back to the grid to help offset the charging stations.

Meeting Recording: <https://www.youtube.com/watch?v=fbAVR5qumW0>

**Action Items:**

- The next meeting is November 17, 2021 at 3:30 with a focus on Transportation