



School Board Candidates Questionnaire on Environmental Issues

Climate change is among the most urgent problems facing the country and threatens the health and future well-being of our children. For Arlington to achieve its goals for reducing greenhouse gas emissions, expanding access to natural resources, and reducing waste, all members of the Arlington community need to participate, especially Arlington Public Schools. To help inform voters on your positions in addressing these pressing issues, we request that you answer the following questions. We will share your answers through our e-newsletters and social media. Please respond no later than **Monday, April 8**.

Instructions - Please provide your name and answer to each question below and email to Joan McIntyre (jfmcintyre57@gmail.com).

Name: Chen Ling

1. **Achieving the County goals for renewable energy and carbon neutrality:**

Fairfax County Public Schools committed to achieving [carbon neutrality for its operations by 2040](#). Should Arlington Public Schools make a similar commitment, and what strategies and policies would you pursue to reduce carbon emissions in APS?

I think we need to get there before 2040 (and the County has a plan to net zero by 2050), and the path that we get there matters. It matters less whether we get to exactly 0 net emissions by 2040. It matters more that we significantly curtail emissions as soon as possible, even if we have a longer (but very small) tail.

One of the things that really bother me is that lot of places have a “net zero by 2050” plan that backloads a lot of the projected reductions in carbon emissions. I think the Arlington County plan is pretty good with a relatively linear decrease through 2050, but I think we should try to find opportunities to front load as much of the reductions as possible.

Two easy paths are to eliminate natural gas usage in our schools, which accounts for 12% of our carbon footprint, and to work with the County to join their VPPA. Electricity usage accounts for 82% of our carbon footprint. We should also make sure that if we build new buildings or retrofit existing ones, we build to Passive Building standards –

this will not only reduce our environmental footprint, but reduce future ongoing costs. I point back to 82% of our carbon footprint coming from our building electricity usage.

2. **Reducing harmful diesel bus emissions and reducing greenhouse gasses through transportation improvements:** Despite the known health benefits, APS has been slow to commit to electric school buses, citing, in particular, space constraints for EV charging infrastructure. At the same time the iRide program allowing students to use ART and, most recently, Metro buses for free has proven very popular among middle and high school students. How would you approach building on both these efforts to most efficiently meet student transportation needs?

We do not want to 'junk' working buses as a new bus has a large environmental footprint. Replacing buses at the end of their life with electric buses is optimal from a carbon footprint perspective. The typical lifespan of a school bus is 10-15 years, and most of APS' diesel buses are on the tail end of that. So in ~5 years most of our buses will become electric, and at some point we'll replace the rest because it'll be too burdensome to maintain only a handful of non-electric buses. Our current buses use B20 biodiesel which is better than nothing.

Charging for electric buses shouldn't be that difficult. Typical buses (<https://www.veic.org/Media/Default/documents/resources/reports/types-of-electric-school-buses.pdf>) only allow level 2 charging at typically 15-20kW, instead of DC fast charging, which is fine. However, most of them use 240V charging, which requires a large and expensive transformer. We should only acquire buses that can handle charging from 277V sources, which is a single phase of the standard commercial 480V 3-phase power source. So for example most street lights run at 277V. A typical school bus route in Virginia (I don't have numbers for Arlington) is 32 miles. They get about 0.67 miles / kWh. So charging should take 2-3 hours, which is feasible without DC fast charging or other expensive and large equipment.

I would like to create more walking buses and bike riding buses to school, to both reduce our usage of buses and improve the health of our students. This has to be done carefully, as a bus that takes 1 child has the same footprint as one that takes 60.

The fuel for our buses only accounts for 5% of our carbon footprint. If we can get County/State/Federal/NGO grants to convert our buses to electric on a reasonable time scale (i.e., so that we never buy new non-electric buses), we should be using any excess budget to prioritize reducing building power usage.

3. **Incorporating nature into development and protecting green spaces:**

Numerous studies demonstrate the importance of access to nature on the mental and physical well-being of children. With the pandemic, the need for increasing connections to nature is extremely critical. How can APS create an environment that incorporates nature into the school environment and curriculum, and what policies would you promote to ensure that all of Arlington's students have easy access to nature?

Several of our elementary schools have outdoor education gardens, and several have partnerships with local outdoor learning programs like Reevesland and the Long Branch Nature Center. We should expand these opportunities and partnerships (e.g., with the Outdoor Lab) so that every elementary school child has this incorporated into their curriculum. This and expanded Walking Buses will, I believe, help both the physical and mental health of our students.

4. **Achieving zero waste:** Arlington County passed a zero-waste resolution in 2015. In recent years, APS has had a poor record of recycling and waste reduction. When APS centralized food preparation, that led to a great deal of packaging for meals. Such packaging, along with single-use plastic utensils, now accounts for a large portion of the APS waste stream. What would you do to reduce plastic, paper, and food waste and maximize recycling at schools to help the County achieve its goals, and what benefits will this provide for Arlington students?

Due to safety regulations and limited staff, single-use utensils are difficult to avoid. However, we can and should require that all packaging, serving ware, and utensils are compostable, including containers for drinks and condiments.

A lot of the food waste is also unfortunately unavoidable due to federal and state regulations ("you must serve each child X, Y, and Z whether they end up eating it or not").

What we can and should do is to eliminate plastics from our schools, and reduce trash waste as much as possible, so that we only have metal and paper recycling, composting, and the smallest amount of trash as possible.

5. **Advisory Committee:** Currently, there is a Sustainability Advisory Committee that advises the Superintendent for APS, but a similar advisory body does not exist for the School Board. Would you support the creation of an expert advisory body for the School Board to provide best practice recommendations on clean energy, climate justice, climate adaptation, energy resilience, solid waste, and environmental health issues? Would you be willing to help create such an advisory body?

I think that another group for the School Board would be duplicative – it's likely that the same people will end up on both. The School Board should be able to directly engage any of the Advisory Committees. If the Advisory Committee is not able to communicate effectively with the Superintendent or the School Board, then that is an issue which should be addressed directly.

6. Other thoughts

One thing that I think APS does relatively well is teaching our kids the importance of protecting the environment, how our actions affect the world around us, and being responsible for interacting with the world around us. One of the historical problems in mindset that we've had in the past is thinking that somehow nature is where people aren't, but we humans are a part of nature and will always affect it profound ways. We can either affect it positively or negatively, and we should help our kids learn how to interact with and affect nature in positive and healthy ways.

Also, my ideas always try to tie environmental improvements with helping the students, teachers, and schools directly. So Walking Buses will hopefully reduce our need for diesel or electric buses and also help our kids be healthier and be more part of the world outside our classroom. Moving to Passive Building standards will not only massively reduce our power usage but also help our students be more comfortable and reduce our ongoing costs so we can invest more in our schools (like properly funding the Outdoor Lab).