Question 1:

Short answer: Yes. Arlington County has a Community Energy Plan (CEP) similar to the Fairfax County Joint Environmental Task (JET) Force's recommendations for achieving carbon neutrality. But there are some differences. The guiding principles of Arlington's CEP and Fairfax's JET is one such difference. Another is that FCPS was directly linked in the creation of JET and has a much more involved relationship with the planning, implementation, and assessment processes. APS does not. That needs to change.

APS cannot go it alone; with the current state of our budget, it would be unwise to create redundant programs or efforts of half-measure. We can, however, with an advisory committee, strengthen our involvement within the CEP (the framework for change and progress is there) and better direct our efforts and resources. The School Board needs to be a present and leading contributor in achieving carbon neutrality.

Many of the policies that I would add to CEP I will outline in further detail below but one that I would emphasize here is in being much more aggressive with our community outreach, particularly in publicizing and incentivizing our programs that offer green alternatives.

Question 2:

Arlington has been very slow in committing to a healthier, greener alternative; despite recognizing that 40% of energy sourced in Arlington County is transportation fuel. 37% of all GHG emissions in AC come from vehicles! In Strategies T.1, T.2, and T.3.1 of the CEP, the steps, and challenges for implementing EV charging infrastructure is outlined. The School Board should lead the way here; EV charging stations at our schools are not only possible but would effectively facilitate awareness and usage of these resources.

The iRide program is a great example of how a simple incentivization can motivate students to get invested in their public mass transportation system. As an added bonus: students who use these resources exercise their independence and widen their exposure to all the diversity Arlington has to offer, especially high schoolers. I've been teaching at Wakefield, and I know they are actively encouraging students to take advantage of iRide. Right now, students can obtain an iRide card at their schools (a coordinator is available on site). Such a resource should be a part of school orientation. Welcome to school! Fill out this form and take a card. Some may use it, some might not, but the presence of that card in a student's wallet or backpack will come in handy someday, and when it does, it will most likely be appreciated and used again.

Question 3:

As a teacher at Wakefield, I have incorporated the Third, Fourth, and Fifth National Climate Assessment Reports into my Earth Sciences classes. We need to ensure that environmental and climate change research, policy making, action, and discourse are incorporated in every appropriate course of study – APS needs to take the initiative to do this – no VA SOL will do it. ("Appropriate" includes many classes, including art – inclusion of the Art x Climate section in the Fifth National Climate Assessment (including art by students) is a very welcome addition – students in my Earth Science classes found these art works engaging and meaningful). I know that for many of my students the experience of "Nature" is quite limited, and consequently the importance of environmental concerns is undervalued. There is a whole realm of possibilities to give new meaning to a "field trip" – but there is a lot of work to make this real – participation with organizations such as the Sierra Club may help – but won't be easily accomplished.

Other ways we can bring our students and nature together is by working to minimize APS' contribution to the DC area's "heat island effect". Many of our schools are surrounded by concrete and parking lots with only token trees to break up the monotony. There are other unused lots that possess great opportunity for a plot, a copse or some other greenery; any opportunity to bring plant life closer to our students should be taken.

Question 4:

I know from being in our high schools that the level of waste is appalling! Consciousness of this problem needs to be embedded in instruction and in the culture of pride in our schools. Our schools need to measure and report on food waste, recycling, and student behavior related to this problem. We need to collect food waste for composting. We need to set goals, measure, and report progress.

Question 5:

I touched on this in the first question, but the School Board needs to be a leading contributor to our efforts towards Arlington's environmental goals. The School Board can no longer remain in a posture of reacting to what has happened. From my work for NASA, especially on climate change research, my orientation has been focused on the future – what we understand and what we don't – what confidence we can have in predictions, and where the failure of our climate modeling tells us we really don't understand what is happening – where greater vigilance is needed. It's a mindset that comes with experience. We need to ensure that forward looking mindset is operating in APS' facilities and operations planning and is supported in our budgeting. This can only be achieved if we have the tools to finding new ways to do things, an advisory body that we can call upon is the way to do that.