

MEETING MINUTES OF THE HYBRID MEETING
ARLINGTON COUNTY C2E2 ENERGY COMMITTEE

5/8/2024

The **C2E2 ENERGY COMMITTEE** convened its hybrid meeting online and in Room 311 (2100 Clarendon Blvd.) at **7:30 AM** on **May 8, 2024**.

PRESENT

Doug Snoeyenbos
Elizabeth Whitney
Scott Brideau
Scott Sklar
Jonathan Morgenstein
Greg Brozak
Rick Keller
John Bloom
Kevin Vincent

PRESENT (VIRTUALLY)

Rob Sandoli, participated virtually from home (via Teams)
Scott Dicke, participated virtually from home (via Teams)
Kip Malinosky, participated virtually from home (via Teams)

ABSENT

Stephanie Burns
Claire Noakes

STAFF

Rich Dooley

GUESTS

Cindy Lewin
Tad Lunger

SUMMARY OF PRESENTATIONS/DISCUSSIONS

1. Review/approve meeting agenda and April meeting summary (7:30) – Doug Snoeyenbos

- D. Snoeyenbos introduced himself and welcomed everyone to the meeting.
- The May meeting agenda was approved.
- The April 2024 meeting summary was approved.

2. Public Comment on General Topics (7:35)

- None

3. Real Estate Tax Exemption for solar equipment (7:40) - Doug Snoeyenbos

- The County Board (CB) approved the RTA at the April CB meeting
- Unless something happens otherwise, the CB report should come to the CB for the May CB meeting
- D. Snoeyenbos took time to read the RTA report. He passed out forms that interested people could complete and who have a solar PV system on their homes. He advocated that those people submit the forms. He asked those people to keep him apprised of how things progress.
- ACTION: R Dooley will ask to whom the forms should be submitted once the CB approves the new Code.

4. Monthly Update from AIRE Team (7:45) - Rich Dooley (including Community Choice Aggregation, CEP Roadmap, EV charging ordinance update, & VA Clean Energy Innovation Bank)

- R. Dooley presented an updated slide deck on the AIRE program activities (Attachment 1)
- For the EV Rate Ordinance report, the group agreed that “cost recovery” was reasonable
 - D. Snoeyenbos advocated that the electricity be offered for free
 - Parking enforcement needs to be taken into account for this report
- J. Bloom asked for a staff update on Admin Reg 4.4.
 - R. Dooley noted that the matter of that update rests with the County’s Office of Climate Change and Policy as that office is charged with advancing that Admin Reg update.

5. Discussion of opportunities for Community Outreach and Engagement (8:00) – Doug Snoeyenbos

- D. Snoeyenbos advocated that the EC members work to spread the word about the importance of addressing climate change
- J. Morgenstein suggested EC members can set up tables at community events
- S. Sklar suggested establishing a speakers bureau consisting of EC members to provide information to various groups around the County
 - The EC can let groups around the County know that these speakers are available
 - The group suggested that the County staff could provide a slide deck that EC members could use to present information

- J. Bloom noted the Sierra Club, FACS, EcoAction Arlington, Leaders in Energy are all groups that provide presentations. Also, it's hard to get people to come to a standalone event. He advocated that we instead get a table or get onto an agenda for an event where people are already planning to be located.
 - Example: Columbia Pike Blues Fest
- E. Whitney – Is it permissible to have an online presence to help showcase activities, events to where people interested in sustainability might want to go?
 - ACTION: S. Brideau asked if the EC has a Teams Channel to organize resources, slides, etc. for speakers to grab from on an as needed basis
- J. Bloom – There is \$3.5M in the Climate Action Fund now – and much of that is to go toward community engagement. How can those monies help with community engagement?
- T. Lunger (guest) noted how there are many well-connected groups available to tap into, e.g., civic associations, Chamber of Commerce. However, the sustainability issues are not well-coordinated, that is, not coordinated as well as affordable housing and Expanded Housing Options discussions.
 - For example, even though the Columbia Pike Partnership (CPP) and that area now has a new set of green building requirements for ColPike projects, no one from County staff or an environmental group came to the 200+ person meeting CPP recently held that had multiple property owners to help inform those property owners of this new requirement
- S. Brideau – We need to identify community events as well as resources we can use at those events
- E. Whitney – It would help to identify the EC's goals of this engagement.
 - Do we want to let people know to use C2E2 and EC to advocate on their behalf?
 - Do we want to amplify the message that we **all** have a role to play to address climate change?
- D. Snoeyenbos thanked the group for the ideas; discussion to be continued.

6. APS – operations/curriculum (8:10) - Scott Sklar, Kip Malinosky

- S. Sklar is in the process of meeting with APS reps. Right now, APS staff are focused on stormwater. More to come on his meetings.
- K. Malinosky presented a slide deck to the group (Attachment 2).
 - The VA SOLs dictate what is taught to our school children
 - It is up to APS in how we implement the VDOE Science Standards that are part of the SOLs
 - There are science units at the ES, MS, and HS levels
 - The words “climate change” do not appear in the APS science units until Grade 7
 - Numerous teachers are not updated on the latest climate science, IPCC reports, etc.
 - All of these units happen toward the end of the year. If classes are running behind, then the science units sometimes get cut short or even dropped entirely.
- Q&A
 - S. Sklar noted that the W-L Earth Science class was using a very outdated book.

- S. Sklar noted the solar PV systems installed on the APS schools and those PV systems and their performance should be a source of curriculum
- S. Brideau echoed the need to showcase the net zero energy school. In addition, it would be good to highlight how are classrooms lit, recycling programs, composting programs, etc.
 - At the Sidwell Friends (DC) school, students lead tours of how the school is sustainable.
- J. Morgenstein noted that children at a very early age understand how they impact their world.
- E. Whitney noted that children will get information on climate from areas outside of the classroom. We can create engaged advocates at an early age. Should be woven into the curriculum throughout the year – not just left to a unit (sometimes) provided at the end of the year.
 - K. Malinosky noted that at Jefferson MS they have an IB program. Such a program is being done at Jefferson MS, but not necessarily at other middle schools.
 - The current State curriculum on solar PV highlights the very high cost of solar panels, but does not talk about the benefits of solar PV systems.
 - K. Malinosky dropped into the chat a [link](#) that highlighted the work being done by sustainability liaisons throughout APS.
- G. Brozak asked if there are after-school groups as part of the schools.
- J. Bloom echoed E. Whitney’s plea to weave climate change into government, politics, economics, etc. classes.

7. Green Building Incentive Program (8:30) – Tad Lunger

- The “existing building” part of the proposed GBIP upgrade is exciting
- Is the Energy Star (ES) certification the right program to use for the GBIP?
- D. Snoeyenbos wanted to know what the property owners need to spend to meet the ES (or whatever) thresholds to get the incentives
- Why was ES chosen as the program?
 - The group agreed that ES is good for focusing on energy efficiency.
- T. Lunger was asked if building owners know about ES.
 - He said, yes, it is well known.
- T. Lunger noted that it is innovative to offer incentives to drive toward higher performing buildings.
- He asked how dependable the sources of funds are? How will this program be paid for? How many buildings is the County aiming for?
- T. Lunger appreciated the presentations to the Chamber and to NAIOP
- T. Lunger noted the start of the GBIP with “density as our currency” really helped to cover building owners’ risk.
- T. Lunger said the biggest threat to this proposed program is funding. The County needs to commit the funding to be made available to projects that agree to be part of this program.

- The business sector did not believe the income projections in the current FY budget projections. Funding sources will become even more tricky.
- S. Sklar talked about investment bonds as an option to try to pay for this program. Also, there could be Federal money to help pay for this program for the next few years.
- T. Lunger noted the importance of lobbying the County Board, to help make reliable and ensured funding for this new program.
- E. Whitney asked if the existing building proposed program includes the repurposing of office buildings over to residential multifamily.
 - R. Dooley encouraged all EC members to learn more about [CMRI 2.0](#) as AIRE Staff are actively participating in that effort.
- T. Lunger really liked the \$25,000 being put toward a Feasibility Grant – that is huge to help building owners better understand their buildings.
 - T. Lunger thinks that same grant should be offered to *existing* building owners to do a feasibility study
- J. Bloom noted the different thresholds and how existing buildings’ ES certification could make it easy to get the buildings up to the thresholds needed in the proposed program
 - T. Lunger noted that this program is designed to incentivize
- G. Brozak asked if we could tax building owners who do not meet certain thresholds with their buildings.
 - S. Brideau noted that is what is done in DC through the BEPS program.
- D. Snoeyenbos asked how much it costs to convert an HVAC system from natural gas to electric
- T. Lunger noted that cost-benefit analyses can be done on building modifications
- T. Lunger wondered how many buildings were envisioned by the County for this program.
- New Construction:
 - Two pathways
 - PHIUS means all-electric – will property owners go that far?
 - T. Lunger noted macro problems:
 - The LEED site plan conditions and additional FAR are being out-lobbied and not as high of a priority of other issues, such as affordable housing.
 - So, property owners must first make affordable housing base provisions.
 - Plus, there are additional affordable housing provisions necessary.
 - Then, there are sector plan mandates for affordable housing.
 - Then, there are GLUP amendment requirements.
 - All of these are Community Benefits requirements that siphon money away from implementing the Green Building Site Plan conditions.
 - T. Lunger reminded the group of the Rosslyn project:
 - The property owner brought forward a 100% renewable energy (solar PV) project
 - But, the County leaders told the property owner to come back with more affordable housing and not to focus on sustainability.
 - **Bottom line: The current bonus system is based on land area / FAR, and it is disconnected to the building’s energy use. The incentive should be based on a building’s GFA which is tied more closely to the building’s energy use / EUI. The**

affordable housing equations in terms of how many units a multifamily project gets is much better and more lucrative than what the GBIP offers.

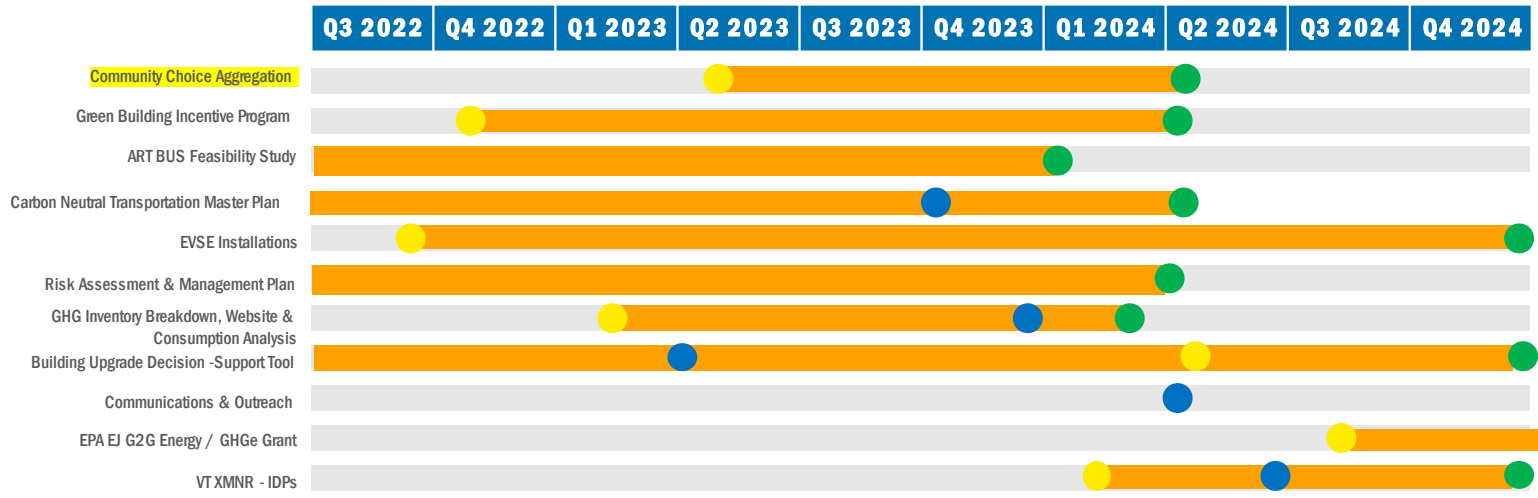
- T. Lunger thinks the CB is not hearing that climate change/sustainability is just as important as affordable housing. We should note that higher performing buildings lead to affordable living for tenants.
- T. Lunger said that nothing is wrong with making the GBIP bar higher and harder to reach, but the incentives need to reflect the corresponding increased costs and efforts.
- The business community has been quiet on the GBIP proposed upgrade since the affordable housing lobby and issues are so sensitive.
- J. Morgenstein noted the G2G work DOE provided the County for Barcroft.
 - The EC could apply to DOE G2G to provide assistance via DOE G2G to help building owners with technical assistance for a specific building.
- E. Whitney asked what groups are closely tied to the affordable housing lobby.
 - T. Lunger noted the developers, e.g., APAH, AHC. Plus, there are also affordable housing advocates.

8. Adjourn (9:30)

- D. Snoeyenbos
- The meeting adjourned at 9:37 am.

ATTACHMENT 1
AIRE PROGRAM UPDATE

Progress Report on AIRE Key Actions



Start ● In progress ■ Key Milestone ● Estimated Completion ●

Note: Years listed on these slides are Calendar Year (CY), not Fiscal Year.

Progress Report Notes

Amendments:

- **Community Choice Aggregation (CCA):** Work start 10-16-2023; CAO/DES returned to Board Closed Session April 2024.
- **GBIP:** Board 2x2s; Review with C2E2/EC Mar-25-2024. Internal and external engagement commenced in April.
- **ARTBus Feasibility Study:** Study completed Nov2023. 2nd order of 8 BEB buses submitted to Commonwealth for continued grant funding; staff is also reviewing potential federal grant opportunities.
- **Carbon Neutral Transportation Master Plan:** CMO and Board 2x2 reviews completed. Staff is working with Kimley Horn to 1) complete the related 5 year Action Program and 2) submit a Round 3 CFI Grant.
- **EVSE Installations:** County staff continue to install EVSE for County fleet and public facing EV chargers, preparing Round 3 CFI grant application.
- **Risk Assessment & Management Plan:** RAMP webpage being finalized; review presentation to C2E2 May-2024.
- **GHG Inventory Diversification/Public Website.** The sector based breakdown of GHG emissions sources is available on the AIRE website [Dashboards page](#). These dashboards showcase emissions as estimated in [the Arlington County Community Greenhouse Gas Emissions Inventory](#). You can view both the [County Government Operations](#) and the [Communitywide](#) emissions dashboards.
- **Building Upgrade Decision-Support Tool:** Tool is being used by the County staff. Additional Facilities will be added to the Tool in FY 25.
- **Communications & Outreach** Released the 2nd edition of the [ACCELERATE report](#) on 3/27/24. Team is developing key events/initiatives for FY 25 to drive behavioral change and market transformation; CPC working with schools
- **EPA EJ G2G Energy/ GHGe Grant:** Following EPA meeting, plan is to finalize prerequisite documentation and launch project in June 2024.
- **VT XMNR & IDPs:** Rich will work with VT XMNR representatives to present in May; possible student Independent Development Projects (IDPs) as follow on

ATTACHMENT 2

Kip Malinosky presentation on “Climate Change and the APS Curriculum”



Climate Change and the APS Curriculum

- **Virginia Department of Education (VDOE) Science Standards**
 - **APS Elementary School Science Units**
 - **APS Middle School Science Units**
 - **APS High School Science Units**
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VDOE Elementary Framework

- **K - Using my senses to understand my world**
 - *K.11) reuse and recycle, impact on air, water, land, living things*
- **Grd 1 - How I interact with my world?**
 - *1.8) limited natural resources; reduce, reuse recycle*
- **Grd 2 - Change occurs all around us.**
 - *2.5) habitats change over time*
 - *2.7) weather and seasonal change affect living things*
- **Grd 3 - Interactions in our world**
 - *3.8) humans influence ecosystems*
- **Grd 4 - Our place in the solar system**
 - *4.4) Weather events affect ecosystems*
- **Grd 5 - Transforming matter and energy**
 - *5.9 Conservation of energy resources is important, renewable energy*

APS Elementary School Application

Grd	Unit Title	Central Idea:
K	Reduce and Recycle	Natural resources make up the common objects and materials that we use. These resources are limited and should be conserved. Humans can accomplish this by reusing, recycling, & conserving.
1st	Earth's Natural Resources	Our natural resources, including clean water, clean air, and undeveloped land, are limited. If we want to enjoy these resources in the future, we need to take care of them now
2nd	Environmental Change	Weather conditions and seasons affect plants, animals, and their surroundings.
3rd	Conserving Earth's Resource	Human behaviors and natural disasters can negatively affect organisms and their habitats. Conservation practices can lessen the effects of human activity and natural disasters on the environment.
4th	Weather Patterns & Effects	Students will understand that weather conditions and phenomena may have significant impact on ecosystems. The prediction of weather events is made possible by tracking weather conditions.
5th	Conservation of Energy	The conservation of energy and the resources used are important and necessary for survival in our world.



VDOE Middle School Framework

- **Grd 6 - Our world; our responsibility**
 - *6.9) humans impact the environment and individuals can influence public policy decisions related to energy and the environment*
 - **Grd 7 - Life Science**
 - *LS.8c) Large-scale changes such as eutrophication, climate changes, and catastrophic disturbances affect ecosystems.*
 - **Grd 8 - Physical Science**
 - *PS.5c) energy can be transformed to meet societal needs.*
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APS Middle School Application

Grd	Unit Title	Essential questions:
6th	Environmental Conservation	<ul style="list-style-type: none">• How can we sustainably use energy on Earth?• How can we sustainably use water on Earth?• With a growing global population, how can governments and communities maintain and protect the environment?
7th	Ecology	<ul style="list-style-type: none">• How do energy and matter flow/cycle throughout an ecosystem?• What makes an ecosystem dynamic (as opposed to static)?• How do organisms interact and change in an ecosystem?• How do humans affect ecosystem dynamics?
8th	Energy	<ul style="list-style-type: none">• How can energy be classified?• How can energy affect matter and how can it be transferred?• How is electricity generated, transformed, and used in Virginia?• How does energy impact our everyday lives?



VDOE Middle School Framework

- **Biology**
 - *BIO.8d) natural events and human activities influence local and global ecosystems and may affect the flora and fauna of Virginia.*
- **Chemistry**
 - *CH.7 thermodynamics explains the relationship between matter and energy*
- **Earth Science**
 - *ES.12e) changes in the atmosphere and the oceans due to natural and human activity affect global climate.*
- **Physics**
 - *PH.8) electrical circuits are a system used to transfer energy*

APS High School Application

Class	Unit Title	Central idea/Essential Question:
Biology	Ecology	How do humans and natural activities affect ecosystems on local, regional, and global scales?
Chemistry	Heat and Energy	What is energy and in what ways does it change?
Earth Science	Meteorology	Why is the ocean the main driver of Earth's climate?
Physics	Circuits	The conceptual understanding of physical systems and mathematics can be used to explore the nature and characteristics of energy and its dynamic interaction with matter.
Oceanography	Temperature anomalies	Life on Earth is dependent upon the chemistry, structures, energy and movements, life, and health within the oceans.
Environmental Science	Environmental Science, Economics, Policy	Earth is an interconnected system through which matter and energy flow and whose resources are finite. Humans impact this system in many ways, and it is our civic responsibility to recognize this, conserve resources, and make positive changes that keep this system balanced.



At Jefferson Middle School

- **6th Grd - Climate Unit** - Centers on How individuals can make a difference like Greta Thunberg
 - **7th Grd - Earth Day Unit** - Civics and Science classes work on an interdisciplinary unit about how individuals can influence policy with the Earth Day Challenge
 - **8th Grd - Renewable Energy** - Science and Geography classes examine the costs and benefits of renewable energy
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Actions to consider:

Consider a letter to the superintendent and science supervisors/specialists

- Emphasize climate change in the curriculum, systems thinking
- Prioritize the pacing from the beginning of the year
- Partnerships with groups like this one

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