

MEETING MINUTES OF THE HYBRID MEETING
ARLINGTON COUNTY C2E2 ENERGY COMMITTEE

2/22/2023

The **C2E2 ENERGY COMMITTEE** convened its hybrid meeting at **7:30 AM** on **February 22, 2023**.

PRESENT (IN-PERSON)

Claire Noakes
Greg Brozak
John Bloom
Stephanie Burns
Scott Dicke
Jonathan Morgenstein
Doug Snoeyenbos
Rick Keller
Kevin Vincent

PRESENT (VIRTUALLY)

Kip Malinosky, participated virtually from home (via Teams)

ABSENT

Scott Sklar
Scott Brideau
Vasu Nambeesan

STAFF

Rich Dooley
Demetra McBride

SUMMARY OF PRESENTATIONS/DISCUSSIONS

1. Greetings and introductions (7:30) – **Claire Noakes**
 - C. Noakes welcomed everyone to the meeting.

2. Review/approve meeting agenda and January meeting summary (7:35) – **Claire Noakes**

- The February meeting agenda and the January meeting summary were both unanimously approved.

3. Public Comment on General Topics (7:40)

- None

4. Monthly update from the AIRE team (8:00) – Rich Dooley

- R. Dooley provided in advance of the meeting the AIRE Update slide deck (see Attachment 1).
- In the meeting, R. Dooley summarized the slides
- The primary new item at the bottom of slide one is the AIRE Technical Initiative with the US Department of Energy’s National Renewable Energy Laboratory (NREL).
 - Through the U.S. Department of Energy’s Clean Energy to Communities (C2C) program, NREL, other national laboratory experts, and select organizations provide *Expert Match*—free, short-term technical assistance to address near-term clean energy challenges and questions. Expert Match is most suitable for communities that could benefit from assistance to inform time-sensitive decisions and identify and understand the range of options for achieving clean energy goals. The Expert Match technical assistance timeframe is 40–60 hours over 1–2 months.
 - The County was awarded participation in the program in December 2022 with a scheduled completion in April 2023. Steve Burr and Drew Stilson are the primary AIRE Team members working with NREL on this project.
 - **Work Area 1. Develop Menu of Redevelopment Options that focus on decarbonization.**
 - NREL will provide technical input on high impact opportunities for influencing the redevelopment process of affordable housing units towards decarbonization and emphasize opportunities to also reduce energy burdens, include energy efficiency. Reviewing current structure of Barcroft Apartments through System Engineering Lens: Through a series of meetings and request for information, NREL will identify the current needs, barriers, and opportunities at Barcroft Apartments Sharing best practices and innovative approaches for increasing decarbonization in affordable housing units and ideas on other innovative clean energy and EE opportunities through a ‘Menu of Options’: NREL will share best practices, opportunities, and benefits of innovative approaches for redevelopment related to Arlington County’s goals
 - **Work Area 2. Action Planning using Better Business Partners Tool**
 - NREL will provide technical input regarding action planning on a building to reduce its energy and carbon footprint
 - **Work Area 3. High-level Overview of Renewable Energy Procurement**
 - NREL will provide technical input regarding procurement of renewable energy projects within Barcroft Apartment and other similar projects throughout the region.

- J. Morgenstein (is an EC member, but who also works for NREL) provided an additional C2C update: there is another \$50M worth of technical assistance being provided to communities. He added a link in the chat regarding those opportunities.
 - He also noted that he has no role in decision-making for the awards, rather, he was simply passing along news of the opportunity in case the County would like to pursue it further.
 - D. McBride informed the EC that the County would be pursuing this opportunity.
- C. Noakes asked whether the NREL project would benefit future County projects.
 - A: DJM noted the Barcroft idiosyncrasies, such as Barcroft owning all of the electrical grid within its boundaries. That said, the project should help us understand how to increase the energy efficiency in these types of buildings.
 - J. Morgenstein noted centralized ground-source heat pumps could very well be beneficial in this project. There is a NYC project he is familiar with. Something similar could possibly help the Arlington community.
- R. Dooley continued to slide two, noting the items in yellow are the changes since the last EC meeting.
 - The timing has changed for the ARTBus Feasibility Study and the Carbon Neutral Transportation Master Plan projects.
 - As previously noted, the AIRE Technical Initiative with NREL is a new project item.

5. 1st-year overview of progress & execution of the Year 1-2 of the CEP Roadmap (7:45) – Demetra McBride

- Demetra asked the EC members if they had heard what County staff were hearing about the Ford Lightning being recalled due to issues with the Lightning’s battery.
 - K. Vincent did see a headline about that issue, but he did not have any additional information to provide to the group.
- Rich forwarded an e-mail to the EC, with the e-mail containing two files regarding a CEP implementation update.
- With the two files we provided to the EC (Attachments 2 and 3), what we wanted to do was to give you two reference points. One file is basically a 2.5-page infographic regarding what we did for CEP Roadmap implementation. The other file provides more details on individual Roadmap efforts.
- The infographic provides a very high-level overview. Even though years one to two in the CEP Roadmap were very ambitious, we have achieved a 95% implementation rate.
 - For the Buildings section, we are envisioning a really bold change to the Green Building Bonus Density Policy and Program. We look forward to engaging with this Committee as we make progress with that project.
 - We’re aiming to update the C-PACE ordinance.
 - Regarding resilience, we aim to add solar PV to County facilities using power purchase agreements (PPAs). However, with PPAs in Virginia, you have a very, very anemic market in terms of vendors. We are working with others to try to overcome those issues.
- C. Noakes asked two questions: 1) Any updates on green banks and how a green bank could help fund any projects, and 2) does AIRE work with APS at all in trying to create more green

energy experts who can help maintain new and innovative equipment going into APS and County projects?

- A: We are working with NVRC and others to identify possible funding sources, e.g., the Inflation Reduction Act, to help us implement additional projects. Also, we are hoping NVRC leads the way in developing a regional green energy workforce to help Arlington and other locales address the issue of lack of qualified workers for these new technologies.
- R. Dooley added that he has talked with the CTE Lead at Arlington Tech as well as the Alexandria/Arlington Regional Workforce Council Executive Director about possibly pursuing funding to add training classes and FTEs at Arlington Tech for solar PV and EV/EVSE education.
- J. Morgenstein noted that there's \$27B available from US EPA that is tied to supporting green banks.
- S. Dicke asked whether NVRC is talking solely with the VA DOE or if NVRC is talking with others about that \$27B, e.g., the Coalition for Green Capital, or CDFIs.
 - A: Demetra noted that many are waiting to receive the guidance from US EPA on that \$27B pot of money before we move forward.
- S. Dicke noted that on the SunTribe issue, it appears as though that company is getting out of the market to install solar PV on smaller individual commercial buildings and instead pivoting to focus on larger utility-scale and campus-wide solar projects.
- For renewables, D. McBride noted that Arlington leads in the Virginia region, Northern Virginia region for the most LEED-certified government buildings, the most LEED-certified schools, and the most zero net energy schools.
 - Regarding zero net energy projects, the County's 1212 S. Irving St. project that was slated to be zero net energy now is now going to meet that mark due to changes to the project. D. McBride has asked for a crosswalk between the original design and the current design to show why the zero net energy goal will not be achievable.
- For transportation, by the end of the fiscal year, at least 18% of our non-emergency sedans are going to be EVs. By the end of FY24 we will be at 39%, and by midway through FY25 we will be at possibly as much as 49 to 50% EVs for our non-emergency sedans.
- Regarding our current idling policy, that is primarily a 2020 DES idling policy. The plan is to revisit that to see if a new idling policy could be applicable county-wide, i.e., for all County departments.
 - S. Noakes asked if whatever is done to the policy, please make it apply to contractors. It seems like the Dept. of Parks and Recreation contractors are idling a lot, so it would be helpful to include County contractors under such an updated policy.
 - G. Brozak asked whether the policy could include APS, since those vehicles are idling regularly.
 - R. Dooley reminded the EC that there is a Sustainability Group for the APS Superintendent. The EC might find it useful to reach out to that group to see what kind of changes could be instituted in APS via that group.
 - K. Vincent noted that about 2-32 years ago he brought the state's idling law to Arlington County's attention. However, the issue he sees is the lack of enforcement of the existing law.

- For EVSE, D. McBride said we've gathered the initial EVSE data. We're in the early stage of mapping demand under the Carbon Neutral Transportation Master Plan (CNTP).
 - We're going to be coming to the Energy Committee and C2E2 soon on that, but also to give you a heads up that we are forming a working panel or group with regard to that plan and it includes representatives from the EC and C2E2. So you'll be getting an invitation from Kimley Horn for that. The panel/group is a little bit different than public engagement because it's a constant working group that you're going to, you know, be represented on.
 - We are hopeful our RFP effort will yield one or more vendors that can address the issue of O&M for EVSE. Up until now, finding a vendor who is willing to do such O&M has turned up nothing.
- For education and behavior, you will receive the first of our AIRE reports soon. These "Accelerate" reports will roll up to the annual report that goes to the CB.
- The other document is around 8.5 pages. It takes you through the same measures and strategies and gives you a more detailed breakdown.
 - Where you see the far right blocks in the table where items are shaded in gold, those are areas where not only have we made significant gains and achievements on CEP Roadmap implementation, but those items have put us in a leadership role either regionally or on a larger scale.
- J. McIntyre asked if the County is assessing how the Roadmap implementation is resulting in a reduction of GHGe.
 - A: Yes, we are starting to update the GHGe inventory. We are looking at the Green Building Incentive Program and trying to determine how that program helped bring down the GHGe.
- S. Burns asked how energy efficiency and GHGe reductions are part of the CIP budgeting process.
 - A: It is difficult for a Bureau to look at other departments and telling those departments what they need to do with their CIP projects to meet the CEP goals. That could well be a role for the incoming Climate Policy Officer.
 - J Morgenstein said that yes, that is exactly why the EC pushed for that new CMO position.
 - S. Burns advocated for a cost of carbon price to be used and applied to County project pricing. For instance, in the TCO study, for sedans, ICE vehicles were actually more cost-effective than EV sedans. If the cost of carbon was integrated into the costing, then EVs would likely look better.
- We may want to speak to this group in a future meeting about years 3-5 and 6-10 CEP Roadmap items.

6. Finish discussion on EV TCO Study (8:15) – Jonathan Morgenstein

- J Morgenstein asked how the TCO study will influence decision-making for the County
 - A: DJM noted that the study already has influenced DES decisions, e.g. right-sizing the fleet. The plan is to involve all other County departments.

- Tyler Smith is looking at the study and including the findings in her discussions with DMF.
 - It is intended to be a working tool in educating the public, too.
- J Morgenstein asked if the Transportation Commission or APS has seen or read the study
 - A: DJM noted that Task 4 in the CNTP is about APS.
 - APS is reviewing a draft TM from the consultant. If the EC wants to see it, they can ask Rich for that TM, and Rich can send that request along to Cathy at APS for consideration.
- D. Snoeyenbos: Vince Plaxico asked for the following to be asked: 45W in the Tax Code allows for a \$7500 credit – to include local govt’s. Vince did not see anything in the study regarding how the 45W benefits could play a role in EV purchases. Vince saw that as an issue.
 - A: D. McBride said the Federal government issued that. We do not know yet what are eligible vehicles for 45W. What is available now is a tool to enter a VIN.
 - K. Vincent asked if what DJM mentioned is regarding 45W, since “American-made” is not part of 45W requirements.
 - D. McBride: We sent the information to DMF for consideration. DMF has talked with a County consultant (PFM), and discussing this with the Risk Management staff and CMO about the opportunity.
 - The TCO Study is not meant to be a tax-advice document.
 - J. Bloom stated that the study should be updated to make the most accurate statement possible regarding the ability of the County government to take advantage of 45W, and the report does not currently do that.
 - D. McBride: Duly noted.
- D. Snoeyenbos – wondered about how the EVSE is planned to accommodate all of the new County fleet EVs.
 - A: D. McBride: Yes, but it’s complicated. EVSE needs are being tracked per the EV users locations. The County is seeing additional costs to meet the electrical capacity needs, and those costs are different for each location. The TCO Study does not include those charges.
 - County staff can charge EVs at County-only EVSE locations, such as the ones on the Mezzanine level at BGC.
- G. Brozak – Only under “Energy Management” in the County budget can he find money to build out more EVSE. Is that it, or are there other parts of the County budget to buy/install those EVSE?
 - A: D. McBride: Those monies are for one year. In addition, the CEP Action Fund may be used to pay for additional EVSE.
- J. Bloom – The TCO study had great insights; for example, that sedans are a relatively minor source of GHGe compared to public service and larger vehicles. It seems like the report begs for a “Lessons Learned” or “Recommendations” section. Maybe the Equipment Bureau could develop those lessons learned.
 - A: D. McBride: This study was intended to feed into the CNTP – this study was going to be a user-friendly tool about the cost of transitioning to EVs. It is not a policy document, rather, it is simply a tool to be used.
- J. Morgenstein – how are ICE vehicles fueled?

- A: The County has a couple of fueling stations in the County, e.g., at the Trades Center and at Fire Station #2, where County staff fuel their ICE vehicles.
- D. McBride noted that public service staff may be able to drive their vehicles to their personal homes, which can lead to much greater mileage for those vehicles.
- G. Brozak – when calculating TCO, replacement time is 9 years – but the TCO study noted an assumption of 11 years due to low mileage.

7. EC member discussion on County's proposed strategy (see PPT deck from recent C2E2 meeting) for transitioning to zero-emission buses – discussion* (8:30) – **John Bloom**

- J. Bloom shared a slide deck and Board Guidance earlier and was discussed here.
- The Board Guidance stemmed from previous discussions with County staff in previous CIP budget deliberations
- The understanding was that the AOMF should accommodate battery electric buses (BEBs).
 - If staff came to the CB with a written report explaining why that should not be done, then the guidance could change.
 - The ART Zero Emission Bus Feasibility report was due in Dec. 2022 and was supposed to inform the installation of charging capacity and equipment at the AOMF through a contract amendment. Since the report is slated to be delayed until mid-April, then does that mean that decision-making will also be delayed?
 - What is happening with the AOMF and the County ART bus fleet? None of the PPTs presented to the Commissions and Committees address that issue.
 - Also, how far do each of the buses drive? The assumption of 2:1 ratio of BEBs:CNG fueled buses relies on such data, but it is not disclosed.
 - A: D. McBride: She had a clarifying conversation yesterday – the AOMF is completely configured to be EV-ready for up to a full fleet of BEBs. Actual construction is phased for when the actual BEBs are to arrive.
 - J. Bloom assumes that a construction amendment is needed to accommodate for the additional infrastructure needed to get the equipment and infrastructure necessary to meet the BEBs charging needs.
 - A: D. McBride does not have an answer yet.
 - J. Bloom: The PPT deck says that in 2025 and 2026 the County will buy CNG buses and not add any EVSE to the AOMF.
 - J. Morgenstein noted that in the PPT deck it explicitly states that the County plans to continue buying CNG buses for the foreseeable future and wait until 5 years from now whether we should buy BEBs or hydrogen-fueled buses.
 - C. Noakes – wondered whether this could be woven into budget suggestions on what the County should add money to do to ensure the AOMF is fully ready to accept BEBs.
 - S. Burns suggests the EC writes a letter; C2E2 meets on Monday and would be the correct group to issue a letter to the CB
 - C. Noakes asked J. Bloom to send an e-mail from the EC to C2E2 on what to include in a budget letter going from the C2E2 to the CB.

- J. Bloom asked again about the length of bus routes, which is a critical piece of information.
- A: D. McBride asked Transit staff for the information. She will share whatever she receives.
- D. McBride would like to know what the EC thinks about resiliency.
- K. Vincent – the study is fundamentally flawed if the bus route length information is not known or is not the basis for the BEB:CNG bus ratio assumptions. Also, the bus power / battery size assumed does not track with the current state of affairs in the BEB industry.
 - He would like to add a few sentences in the EC e-mail to C2E2 to reflect these issues.
- S. Burns noted that the PPT slides being presented by staff are not a “study.”
- J. Bloom noted that the EC and C2E2 normally works well with DES. However, the process for this project has been problematic. The trust factor is taking a hit.
- R. Keller – thinks that information is basic and essential for the running of the ART bus fleet
- C. Noakes put forth a Motion: There's the sentiment of the EC that the burden that County staff had under this guidance from the County Board was not met. County staff did not meet their burden to proceed with CNG bus purchases because of the presumed default ratio for BEBs. The Motion was seconded and **passed unanimously**.

8. County budget discussion (9:00) – All

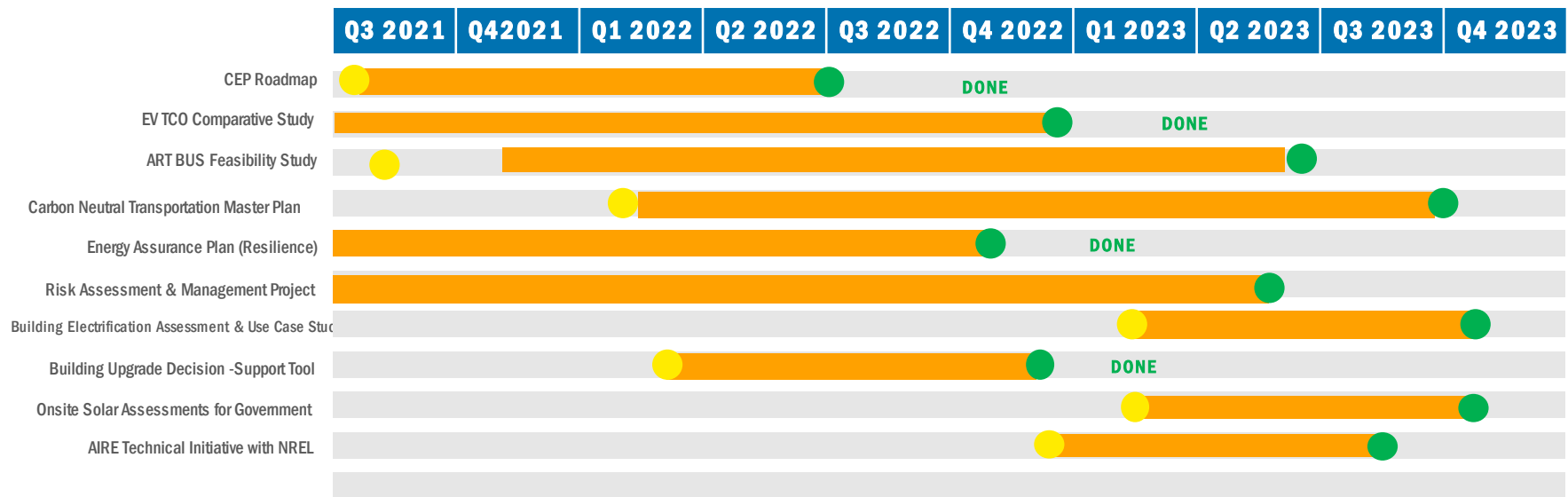
- \$200,000 for AIRE initiatives
 - A: D. McBride asked for that money since we will be applying for numerous IRA and IJIA opportunities and that money will help support those efforts.
- kW of output for solar PV has dramatically increased
- CMO mentioned that a support staff position in CMO to the Climate Officer was to be cut
 - J. Bloom – he understands that the position is slated to be cut
 - J. Morgenstein – would like to ask CMO to have Bill Eger come to an upcoming EC meeting
- BBC is tied to EUI. Do we have a plan to show energy usage information as we transition from natural gas to electric, e.g., as we add more EVSE and EVs to our fleet?
 - A: D. McBride – Yes – we will be tracking that transition. We need to gather enough data to make such a transition worthwhile and effective.
 - C. Noakes noted that our current Budget Performance Measures do not reflect that transition.
 - D. McBride said we provided the CMO talking points as to why the County EUI performance has done worse now compared to 2019.
 - S. Dicke said some other jurisdictions are showing the reduction in gas usage in relation to increased electricity usage.
- G. Brozak - he could not find much in the way of budgeting for AIRE in the budget.

- C. Noakes – look at pp. 420-445 in the budget document and offer suggestions at the next meeting.
9. Adjourn (9:30) -
- Meeting adjourned 9:31 am.

ATTACHMENT 1

AIRE UPDATE

Progress Report on Studies and Plans



Start ● In progress ■ Estimated Completion ●

Note: Years listed above are Calendar Year (CY), not Fiscal Year.

Progress Report Notes

Amendments:

- **CEP Roadmap:** Final Roadmap is on the CEP webpage:
<https://www.arlingtonva.us/files/sharedassets/public/environment/documents/ceproadmap07-26-2022-with-cover.pdf>
- **EV TCO Comparative study:** Report finished.
- **ARTBus Feasibility Study:** Draft Study Report scheduled for April 2023
- **Carbon Neutral Transportation Master Plan:** Amended SOW Jan 2023 to expand EVSE analysis/siting plan & engagement. Est. completion adjusted to Oct 2023.
- **Energy Assurance Plan (EAP):** Report provided to County staff.
- **Risk Assessment & Management Plan RAMP Task 6** (Gap Analysis with Mitigation and Adaptation Strategy Development) County staff & consultant workshop is scheduled for March.
- **Building Electrification Assessment and Use Case Studies:** Builds on previous SWA report. With FY23 funding available, the project will move forward after the Energy Services Contract RFP is completed. Report slated for Q4 CY2023.
- **Building Upgrade Decision-Support Tool:** Tool is being used by the County staff.
- **On-Site Solar Assessments Project:** With FY23 funding expected to be available, the project will move forward after the Energy Services Contract RFP is completed. Report slated for Q4 CY2023.
- **AIRE Technical Initiative with NREL:** NREL providing technical assistance to County staff and Barcroft property owner to enhance project energy efficiency and resiliency.

ATTACHMENT 2


CEP Roadmap Progress – 1-2 Years

Community Energy Plan (CEP)

Roadmap Progress 1-2 Year Goals

Arlington Initiative to **Rethink Energy**

CARBON 2050 NEUTRAL



Buildings

Encourage greater energy efficiency and the use of lower carbon fuels in buildings. ✓

- CCA Legal/Regulatory Deep Analysis – recruiting interest from regional jurisdictions.
- Comprehensive Scope of Work drafted.


C-PACE Program – Rocklands BBQ went live in July 2022 ✓

- Only C-PACE Project in Virginia
- Two potential projects pending update to Ordinance/Program

Green Home Choice Program ✓

Update the Green Building (Bonus Density) Policy ✓

Resilience




Invest in on-site renewable and storage systems to power critical facilities and new County projects. ✓

Solar Assessments to Identify Highest-Capacity Potential for Government Facilities ✓

Develop an Energy Assurance Plan (EAP) ✓

- 2022 Program covered 5 million sq ft of new commercial & multi-family buildings.
- More than 25 million sq ft to date
- 2nd largest # of Green Building private sector projects
- Arlington tied for largest # of Green Building sq footage private sector projects!

Renewable Energy




Solar Assessments to Identify Highest-Capacity Potential for Government Facilities ✓

Use Power Purchase Agreements (PPAs), VPPAs, and green power purchases to meet CEP renewable electricity targets. ✓

Regional Leadership:

- Most LEED Government Buildings (15)
- Most LEED Schools (6)
- Most Zero Net Energy Schools (2)



Solar Co-Op Program (incl. EVSE Charging) ✓


- 109 solar installs in 2022 (higher than 2021)
- #1 in Tri-State Region
- Performance 3x to 10x greater than participating jurisdictions in NOVA, D.C. and Maryland
- 37 EV Chargers installed since 2020.
- 435 total cumulative installs since program inception.

Facilitate group/bulk purchases of renewable energy. ✓


- Maplewood Project accelerated 2025 goal by 2 years!
- First in region to achieve 100% renewable energy for government operations.
- Used long-term contract that has additionality to RE generation on the grid.




Transportation

Work with partners at the Federal, State, regional and local levels to proactively address transportation and transit issues 

- Member, MWCOG Regional EV Infrastructure Workgroup
- AIRE-EB-APS Grant Partnership for Electric School Bus Pilot
- Early vetting of current Idling Policy (Spring 2023)
- Early vetting of potential permitting policies for EVSE installation (Spring 2023)


Facilitate the growth of electric vehicle charging infrastructure. 

- County-wide public access-public use EVSE Program.
- 1st Project: Bozeman. 6 public-use chargers, and 6 government-use chargers. Identified 7
- additional sites for public access-public use EVSE stations at community centers, libraries, parks etc. Vetting infrastructure
- at 7 additional sites with Dominion


Integrate Fuel Efficiency and Electric Vehicle Considerations into the Process of Replacing Infrastructure and County and APS Fleet Vehicles 



- Non-Emergency Sedan Fleet is 40.5% EV in 2023; increasing to 49% in 2024
- Lead in NOVA – ranging from 6x-8X greater penetration of EV fleet.


Issue RFP for EVSE Installation/Management Vendors 

- Issued October 2022
- Proposals under review

Implement Grant Award for APS School Buses 

- AIRE and Equipment Bureau (EB) led successful grant application for 3 Electric School Buses under Virginia grant.
- Now in implementation between EB and APS.



Develop Arlington County EVSE Rate Ordinance 

- Established interim rate ordinance at 14 cents/kWh in Summer 2022

Transportation Studies:




Decarbonization Master Plan: Carbon-Neutral Transportation Master Plan launched 2022. Working Group Panel to be established (internal & external stakeholders) Feb-Mar 2023. Begin Core Subjects Panel Meetings in April 2023. Estimated completion Fall 2023


ART Feasibility Study: To be completed Summer 2023. Interim engagement: To C2E2 and Transportation Commission Chairs C2E2 January meeting >TAC January meeting > Board 2x2s Dec-Jan 2022/23

APS fleet transition to EVs study (part of the Master Plan): Completed. Initial study done under the Total Cost of Ownership Study. Updated under Carbon-Neutral Transportation Master Plan




Government


Enhance the County's Whole-of-Government Approach to Addressing Energy Matters 

Formalize Intra-County Climate, Energy and Resilience Working Group 

- Created and supervised by AIRE. This working group meets quarterly.


Create a Process of Calculating All Direct and Indirect Capital Investments 



- County Budget process is not compatible with a single-process tool


Update & Implement Operations & Sustainability Plans for County Projects 


- Environmental Assessment updated and web-based (2022)
- Solids Master Plan (2022)
- Sustainable Facilities Policy (2023)

• MWCOG 2022 GHG Inventory Report places Arlington in regional leadership role
 • 2022 CDP A-List Cities Recognition (only 36 in the United States)




Track and Capitalize on Federal Funding Opportunities  

Begin Updating the CEP (GHG Inventory and Community Engagement) - In Progress 

Participate and be a Leader in the DOE Better Buildings Challenge 

- Arlington County has annually participated in the Better Buildings Challenge, with the goal of reducing County facility energy use intensity (EUI) by 20% over 10 years. In 2021, the County achieved an 18% reduction over 9 years.

Invest in Energy Technologies and Infrastructure in County Facilities and Operations 

- Decarbonization Tool completed Jan '23 & 1st phase of facilities identified for upgrades, moving forward in 2023 & 2024



Eliminate Regulatory, Legislative, & Transactional Barriers to Fully Implement the CEP

- Work with County Legislative Liaison on priority bills
- Membership in PJMCCC and active on both Policy and Steering Committees
- VEPGA Board membership
- PJMCCC and Applied Economics Clinic - "Electric Justice: A Toolkit for the Mid-Atlantic Region"
- Membership in VESPN and active on both Policy and Steering Committees



Education & Behavior Change



Radical expansion and diversification of web-based, electronic, polling, event, and marketing collateral, through in-house, consultant and marketing resources

Increase Community Knowledge on Energy Matters and CEP Implementation

- Events: Think BIG on Transportation- Oct 2022
- Website Upgrades
- Quarterly Report - Mar-1-2023
- Total Cost of Ownership Comparative Analysis (EV vs. ICE) - Feb 2023



ATTACHMENT 3

CEP Roadmap Project Tracking – 1-2 Years

Topic	Task/Activity	Status	Notes
Buildings	Encourage greater energy efficiency and the use of lower carbon fuels in buildings	Completed/On-going	<ul style="list-style-type: none"> • CCA Legal/Regulatory Deep Analysis – working on this for past year to confirm Alexandria partnership; Initial and Comprehensive SOW drafted • Pending discussion with CAO • Also has potential to impact electrification in Transportation • See component programs/actions below
Buildings	Green Home Choice Program		2022 DATA NEEDED
NEEDED	Update and complete SWA Buildings Electrification Measures Study		Contracts expiring; new procurement/contracting in-progress
Buildings	C-PACE Program – Rocklands BBQ went live in July 2022	Completed/On-going	<ul style="list-style-type: none"> • Only C-PACE Project in Virginia • Two potential projects pending update to Ordinance/Program

Buildings	Update the Green Building (Bonus Density) Policy	In Progress	<ul style="list-style-type: none"> • 2022 Program covered 5 Million sf of new commercial and multi-family buildings • More than 25 Million sf to date • 2nd largest # of Green Building private sector projects/2021
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			<ul style="list-style-type: none"> • Tied for largest # of Green Building square footage private-sector projects
Buildings	Solar Co-Op Program (including EVSE Charging) <ul style="list-style-type: none"> • 2022 numbers higher than 2021 • 435 total cumulative solar installs in 2022 	Completed/In-Progress	<ul style="list-style-type: none"> • 109 installations in 2022 • #1 in Tri-State Region • Performance 3x to 10x greater than participating jurisdictions in NOVA, D.C. and Maryland • 37 EV Chargers installed since 2020
Resilience	Invest in on-site renewable and storage systems to power critical facilities and new County projects.	Completed/On-going	See installations below under Renewable Energy
Resilience	Develop an Energy Assurance Plan (EAP)	Completed	
Resilience	Solar Assessments to Identify Highest-Capacity Potential for Government Facilities	Completed/Ongoing collaboration with FMB	High-level roof assessments conducted for government facilities.

Renewable Energy	Facilitate group/bulk purchases of renewable energy – Maplewood Project!!	Completed	<ul style="list-style-type: none"> Accelerated 2025 goal by two years First in region Comparables: 10% - 15% renewable energy resources for government electricity
Renewable Energy	<p>Use Power Purchase Agreements (PPAs), VPPAs, and green power purchases to meet the CEP renewable electricity targets. On-site solar on County Facilities:</p> <ul style="list-style-type: none"> Lubber Run 1212 Irving (too small for PPA, county owned and maintained) Fire Station 8 (too small for PPA, county owned and maintained) AMOF facility (when completed), Central Library roof replacement. Existing solar will be removed, and it will become solar-ready 	In-Progress/continuing over FY23 & FY24	<p>NOVA Leadership:</p> <ul style="list-style-type: none"> Most LEED Government Buildings (15) Most LEED Schools (6) Most Zero Net Energy Schools (2)

	<ul style="list-style-type: none"> Equipment Bureau: solar-ready <p>All other facilities except 1212 Irving & Fire Station 8 will be under a PPA model for the RFP.</p>		
Renewable Energy	<p>Solar Co-Op Program (including EVSE Charging)</p> <ul style="list-style-type: none"> 2022 numbers higher than 2021 <p>435 total cumulative solar installs in 2022</p>	Completed/On-going	See above under Buildings
Renewable Energy	Solar Assessments to Identify Highest-Capacity Potential for Government Facilities	Completed/Ongoing collaboration with FMB	High-level roof assessments conducted for government facilities.

Transportation	Work with partners at the Federal, State, regional and local levels to proactively address transportation and transit issues	Completed/On-going	<ul style="list-style-type: none"> • Member, MWCOG Regional EV Infrastructure Workgroup • AIRE-EB-APS Grant Partnership for Electric School Bus Pilot • Early vetting of current Idling Policy (Spring 2023) • Early vetting of potential permitting policies for EVSE installation (Spring 2023)
Transportation	Facilitate the growth of electric vehicle charging infrastructure.	Completed/On-going	<ul style="list-style-type: none"> • Countywide public access-public use EVSE Program , • 1st Project: Bozeman. 6 public-use chargers, and ___government-use chargers. • Identified 7 additional sites for public access-public use EVSE stations at community centers, libraries, parks etc. • Vetting infrastructure at 7 additional sites with Dominion
			<ul style="list-style-type: none"> • NOVA Leadership Position
Transportation	Issue RFP for EVSE Installation/Management Vendors	Completed	<ul style="list-style-type: none"> • Issued October 2022 • Proposals under Review

Transportation	Develop Arlington County EVSE Rate Ordinance.	Completed	Established interim rate ordinance at 14 cents/kWh in Summer 2022
Transportation	Integrate Fuel Efficiency and Electric Vehicle Considerations into the Process of Replacing Infrastructure and County and APS Fleet Vehicles	Completed/On-going	<ul style="list-style-type: none"> • Non-Emergency Sedan Fleet is 40.5% EV in 2023; increasing to 49% in 2024 • Lead in NOVA – ranging from 6x – 8X greater penetration of EV fleet
Transportation	Implement Grant Award for APS School Buses	Completed	AIRE and Equipment Bureau (EB) led , successful grant application for 3 Electric School Buses under VA grant. Now in implementation between EB and APS.
Transportation	Replace 10% of County ICE Sedans with EVs		See above.
Transportation	Support Master Transportation Plan implementation by promoting alternatives to car ownership and use	Completed/On-going	See below under Education and Behavior Change
Transportation	Produce a Decarbonization Master Plan <ul style="list-style-type: none"> • Includes government fleet, private sector transportation, supporting infrastructure, APS Fleet, EVSE Heat/Siting Map, Policy/ies, resilience strategies, market forecast 	Completed	<ul style="list-style-type: none"> • Carbon-Neutral Transportation Master Plan launched in Fall 2022 • Working Group Panel to be established (internal and external stakeholders) Feb-Mar 2023 • Begin Core Subjects Panel Meetings in April 2023 • Estimated completion Fall 2023
Transportation	Complete ART Feasibility Study	To be completed Summer 2023	<ul style="list-style-type: none"> • Interim engagement: • to C2E2 and Transportation Commission Chairs • C2E2 January meeting

			<ul style="list-style-type: none"> • TAC January meeting • Board 2x2s Dec-Jan 2022/23 • Est. Completion Summer 2023
Transportation	Complete a study of APS fleet transition to EVs as part of the Master Plan	Completed	<ul style="list-style-type: none"> • Initial study done under the Total Cost of Ownership Study; • Updated under Carbon-Neutral Transportation Master Plan
Transportation	Update the County's vehicle idling policy (now in the Driver Policy) to ensure best practices are being employed	Early Development	See above
Government Activities	Enhance the County's Whole-of Government Approach to Addressing Energy Matters	Continuous/On-going	<ul style="list-style-type: none"> • MWCOG 2022 GHG Inventory Report places Arlington in regional leadership role • 2022 CDP A-List Cities Recognition (only 36 in the United States) • Infographic of AIRE collaboration layers will soon be distributed first week of March under Quarterly Report
Government Activities	Formalize Intra-County Climate, Energy and Resilience Working Group	Completed/On-going	Created and supervised by AIRE, this working group meets quarterly.
Government Activities	Develop CIP Cross-Reference Matrix		This is administered at the CMO/DMF level as part of the Budget Process
Government Activities	Eliminate Regulatory, Legislative, and Transactional Barriers to Fully Implement the CEP		Work with County Legislative Liaison on priority bills

			Membership in PJMCCC and active on both Policy and Steering Committees VEPGA Board membership
Government Activities	Participate and be a Leader in the Department of Energy Better Buildings Challenge	Completed/On-going	Rebecca, Charles should have this information.
Government Activities	Invest in Energy Technologies and Infrastructure in County Facilities and for County Operations as Part of the County's Capital Improvement Plan (CIP)	Continuous/On-Going	Decarbonization Tool completed Jan 2023 First Phase/Tier Facilities identified for upgrades using Decarb Tool First Sites will move forward in 2023 and 2024
Government Activities	Create a Process of Calculating All Direct and Indirect Capital Investments (buildings, fleets, utilities, Equipment Bureau, affordable/needs housing)		County Budget process is not compatible with a single-process tool
Government Activities	Promote Energy Efficiency and Use of Renewable Energy and Lower-Carbon Fuels in County Buildings and Operations		See above and also under Renewable Energy
Government Activities	New Equipment/Technology Review		Needs more specific definition
Government Activities	Update and Implement Relevant Operations and Sustainability Plans for County Projects	Continuous/On-Going	Examples: <ul style="list-style-type: none"> • Environmental Assessment updated and web-based (2022) • Energy Assurance Plan (2022) • C-PACE Ordinance Program (2023) • Solids Master Plan (2022) • Sustainable Facilities Policy (2023)

Government Activities	Begin the Process of Updating the CEP (GHGe Inventory and Community Engagement)	Launched	Early data activities launched and to be supported by new Procurement Contracts
Government Activities	Track and Report CEP Implementation Progress	Continuous/On-going	<ul style="list-style-type: none"> • Quarterly Reports (first Mar-1-2023) • Annual Report (first Q1 2024) • Supplemental documents (such as this one)
Government Activities	Introduce Annual Report to the County Board	Completed/On-going	The Quarterly Reports (Accelerate) will fold up into the Annual Report.
Government Activities	Promote the use of Advanced Building Energy Management Practices to Reduce Energy Waste in County Facilities	Completed/On-going	Sent messaging to all County employees, Heating Tips & on SharePoint accessible to all.
Government Activities	Existing Facilities Upgrade Partnerships (AIRE & FMB)		
Government Activities	New Facility Design and Site Plan Review	Continuous/On-going	Rebecca, ask Stephen and Rich/Paul to provide bullets on this

<p>Government Activities</p>	<p>Track and Capitalize on Federal Funding Opportunities</p>	<p>Completed/On-going</p>	<ul style="list-style-type: none"> • Bi-weekly meetings with consultant tracking and development consultant • Telescoping efforts on 6-9 primary grant opportunities • Identified federal-state grant opportunities for APS • Active under NVRC effort to develop centralized/multi-jurisdictional grant applications • Coordination with VA Dept of Energy on federal grant pass-throughs • Submitted proposal under Dominion Pilot Program opportunity
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Education & Behavior Change	Increase Community Knowledge on Energy Matters and CEP Implementation	Completed/On-going	Events: Think BIG on Transportation– Oct 2022 Website Upgrades Quarterly Report – Mar-1-2023 Total Cost of Ownership Comparative Analysis (EV vs. ICE) - Feb 2023
Education & Behavior Change	Radical expansion and diversification of web-based, electronic, polling, event, and marketing collateral, through in-house, consultant and marketing resources	Completed/On-going	Events: Think BIG 2023 Event(s) Website Upgrades Quarterly Report Upcoming: Earth Day