

Arlington County C2E2 Energy Committee

Meeting Summary

Wednesday, March 10, 2021

7:30 am – 9:30 am

Agenda Items

1. Greetings and introductions. **(7:30)**

- Doug Snoeyenbos (Arlington Democrats) and Joshua Griset (Resident) introduced themselves.

2. Review/approve March meeting agenda and February meeting summary. **(7:35)**

- Both the March meeting agenda and the February meeting summary were approved.

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

- None

4. *FY 2022 Budget (7:45) – Claire Noakes*

a. Staff briefing - **Demetra McBride**

b. Discussion on action for April Meeting

- i. Performance measures
- ii. AIRE resources

- Claire summarized the recent DES CB Budget Work Session
 - There was one-time funding of \$150,000 that is not continued for CEP initiatives.
 - Greg Emanuel addressed this indirectly: He said we have money for studies; if we need \$15,000 to conduct a study for AIRE, we can do that.
 - An EC member in today's meeting questioned whether that money that is available can only be used for studies.
 - At the end of the CB presentation, CB members asked Greg and County Manager about creating a Climate Czar position in the CMO. The County Manager seemed to dismiss the idea.
 - There was a comment to mobilize CEP implementation efforts across all County staff. Greg E. indicated that we can already do that.
 - The question from the EC is whether the current situation allows the people managing the CEP effort the ability to hire and fire people based on their actions or inactions.
 - Comparison with Fairfax:
 - AIRE staff's budget: AIRE FY22: \$1.59M with 8 FTE, Fairfax: \$1.35M and 13 FTE

- Unclear about different scopes of responsibilities and capabilities
 - Performance Measures: Copy of the budget is in the EC meeting chat. Page 425 = AIRE Team part of the budget.
 - Mike Moon was asked what the Performance Measures mean. Unclear. Some seem to indicate that GHGe in the County are projected to decline year over year.
 - The pandemic caused a GHGe decrease. Unclear why FY22 GHGe are expected to fall again. **It would be helpful to hear from the AIRE Team about that in a future EC meeting.**
- Demetra provided an overview of the work session (Attachment 1). To answer Claire's questions, comments:
 - Regarding letters asking for a Climate Czar, the County Manager's words from the CB Work Session stand.
 - **The County is preparing an infographic** – soon to be ready.
 - We already work regularly across multiple departments covering multiple sustainability issues.
 - Regarding comparing Arlington with Fairfax, the population and geographic size differences makes it difficult to compare the two jurisdictions.
 - Regarding Performance Measures, if the comments relate to the FAAC meeting – the FY22 GHGe reduction in the community comes from the Maplewood solar PV system coming online and Dominion continuing to clean its grid all help contribute to the GHGe decrease.
 - Claire confirmed that the FAAC presentation did discuss the AIRE Performance Measures.
 - The Maplewood Solar Farm starting FY22 will make our electricity about 83% renewable
 - The Lubber Run Community Center plans to have a solar PV system.
 - More EVs in our fleet will help reduce our GHGe.
 - Green Building Density Incentive Program also contributes to the decrease.
 - The analysis did not include the ART bus facility.
- There are many studies being conducted, as listed in slide 2.
- The Government Fleet is undergoing an electrification transition. Building and grid capacity needs to be taken into account during that transition. We hope the Energy Assurance Plan will help to deal with some of those capacity issues.
- The Government fleet transition plan is being reconfigured by Chris Allison.
- We are preparing for outside funding options that may become available soon.
- Note that other County departments have performance measures that relate to sustainability and AIRE efforts.

Q&A:

- Scott Sklar: How do we get information out to various sectors of the Arlington community to help people understand how the AIRE efforts affect their lives?
 - Demetra: Adam is working on that. Managing these efforts in a virtual world is challenging.

- **The EC would like to put a marker on that topic to discuss it further.**
- Jonathan: Regarding that other County departments have performance measures that are tied to AIRE efforts, the Federal Energy Management Program (FEMP) tracks its impact on other Federal government departments. Could AIRE do the same at the local government level?
 - Demetra: Good idea. For instance, we can look at how other departments investing in EVs and pushing for those EVs helps costs and GHGe reductions
- Jonathan: Greg E. in the DES CB Budget Work Session talked about the availability of consultant and other AIRE funds. It sounds like DES has money to do more work on our existential crisis of climate change.
 - Are there priorities of which studies should be pursued? When will those funds be used for those efforts?
 - Demetra: We are hopeful to be able to use money for execution.
 - We are waiting and hoping for Biden administration grant monies being made available. We plan to have matching funds available to pursue larger outside money opportunities.
 - Also, we are expanding scopes of studies, e.g., the EV studies, which help us address issues.
 - In terms of priorities, Demetra has given Greg E. CIP project priorities and price tags tied to those projects.
- John Bloom: There are aggressive net zero affordable housing standards that the EC would like to see used. Also, more broadly on the budget, it sounds like other department's budgets benefit from AIRE and sustainability issues. It would be great to find ways to expand AIRE's reach beyond its borders and to show AIRE's influences and benefits.
 - **Demetra notes it is tough to translate the AIRE Team's efforts and how they benefit and fall under other departments' ledgers.**
 - P. 862 in the budget book: number of light-duty EVs in the fleet.
- Claire noted that community-wide goals warrant overarching performance measures that reach across multiple County departments since the current budget document is too opaque.
 - We also do not see how the concrete stormwater detention vaults (addressing stormwater) can impact GHGe.
- Rick Keller: A few years ago AIRE had money to supplement County projects and make County projects more energy efficient. It seems like that money was cut. Is there a way to show how those departments' energy usage has changed since those funds have been cut? It would be great to get those monies restored to AIRE as opposed to having the money put into other departments' budgets.
 - **Demetra will check and is happy to talk with Rick more about that.**
- John Bloom: As a way to cut across departments and consider GHGe across all procurement decisions, we need carbon accounting / social cost of carbon done across the government. Not sure how to make that happen.
 - The Biden Administration is working on updating that social cost of carbon numbers – hopefully done in 2022.

5. *CEPIF Updates (8:30)* – Jonathan Morgenstein

- a. Staff briefing - **Demetra McBride**
 - b. Sharing of C2E2 letter to the Board
 - c. Discussion of any next steps
- EC sent to C2E2 two letters – one articulating a whole of government approach for CEP implementation, and one that noted the current CEPIF was not meeting the mark and a CEP Roadmap was needed.
 - Greg E. noted during the CB Work Session that the CEP Roadmap will illustrate how the strategies relate to the CEP wedge chart.
 - Greg went on to remark about the whole-of-government approach. To scale up, it's not about the AIRE Team growing, rather, it's about enlisting the help of all County employees.
 - However, Greg E. does not have the authority to control staff in departments other than DES.
 - If everyone is responsible, then no one is responsible.
 - Demetra replies:
 - On the whole of government approach, the County Manager is really the only person in the County who has the authority the EC is seeking for a Climate Czar.
 - The CEP Roadmap is scoped and we are working toward getting a PO created. We hope to have the CEP Roadmap done by the end of the year.
 - The current AIRE Work Plan shows that the AIRE Team is working on creating that CEP Roadmap in addition to tackling many other projects.

6. *Letter on Electric Vehicles (8:45) – Kevin Vincent & Vince Plaxico*

- a. Introduction of Letter
- b. Staff briefing - **Demetra McBride**
- c. Discussion & Vote on Letter

- The letter (Attachment 2) was shown and discussed.
- Does the EC agree to send this on to C2E2 for review, edits, consideration?

Q&A:

- John Bloom: Question about timing. The letter is good, and he likes the purchase of EVs to be the default and requiring something other than that has to be explained. Do we need the letter to get this current budget being considered(FY22) to focus on light-duty vehicles (LDVs)?
 - Claire noted that Greg E. said in the CB Work Session that the County is already looking to replace sedans with EVs.
 - John B. - However, Greg could not tell how many ICE vehicles were being purchased.
 - Demetra: Covid reduced fleet vehicle usage, and impacted County budgets. We are deferring many vehicle purchases. In FY23 we envision a greater turnover of LDVs and thus a greater number of EVs to be purchased. Demetra asked for an internal study of over 200 vehicles to transition to EVs.
 - Kevin: Thinks the letter recommending overall EV policy changes across the entire fleet is timely now.

- Kevin: DC Fast charging being considered by private sector folks is much more expensive than the Level 2 chargers the County should pursue. Also, Smart Charging programs that control how and when certain EVs charge is important. The chargers being installed and used should be enabled for Smart Charging capability to address Dominion concerns.
- Vince: The letter does not seem too prescriptive. Does TCO analysis happen within the County government?
 - Demetra: The study that was done is for TCO for a resident converting from an ICE to an EV.
 - The study does not include County calculations of cost of EVSE to government. We have recently installed chargers for EVs being used by County Public Safety staff. Also, we are talking with JBG about possible EVSE options. It would be nice if the letter accurately states what the study does and does not address. Regarding Vince's question, yes, TCO studies are part of the County's efforts now internally.
- Rick K: Likes the letter. Regarding the letter's conclusion, some industry movements may make more heavy-duty vehicles available. For instance, Dominion is looking to add more heavy-duty EVs to its fleet.
 - The County could look at its vehicle turnover timing and try to extend the life of current ICE heavy-duty vehicles to allow for technology to catch up and let the County buy heavy-duty vehicles as EVs.
 - Last, hydrogen-fueled vehicles could be looked at, so perhaps we make the approach more flexible in our letter wording to be able to include hydrogen-fueled vehicles.
- Tim E: We need smart technologies. In the letter, we could note a larger topic about forcing Dominion to figure out how to use technologies to better manage load as opposed to simply requiring more substations, transformers, and grid infrastructure.
 - **Also, for future meetings he'd like to discuss Dominion's latest position on VPPAs and definition of what is "renewable" energy.**
- Jonathan: He hears that the letter needs tweaking. Kevin is on the C2E2. How to proceed with moving this to C2E2?
 - John Bloom: We have a draft letter with good content. Kevin and other C2E2 members could possibly get to the next draft before sending it to all of C2E2.
 - Vote to recommend that C2E2 take up this issue, using this letter as the basis of C2E2 discussion, consideration, and to draft its own letter accordingly: **Vote = Unanimous approval**

7. *Intro of Metrics for Arlington Universities to track (9:05) – Scott Sklar*

a. Discussion and vote

- The initiative was to support AIRE staff and its efforts to track metrics.
- Scott Sklar: The overall initiative goal is to format the metrics reporting results in a way that is easily understood by the public.
 - For instance, take text and make infographics that make things understandable to the layperson.

- Scott Dicke created list of metrics from what Joan Kelsch sent to the EC.
- Jonathan asked EC members to prioritize that list of metrics and to select the top 15 metrics for universities to consider addressing.
- Each university will take about 2-4 each and will be included as capstone projects.
- GMU will host the dashboards.
- The EC and the four universities will work with the AIRE staff on this initiative. The goal is to not overly burden AIRE staff and to track CEP implementation progress.
- Next steps: have all EC members vote, prioritize.
 - Tim E defers to what others have done and how they vote, prioritize.
 - Jonathan will send out the link to vote again.
- Joan Kelsch noted that some QA/QC is needed on the voting to ensure numbers match up.
- Scott Dicke: This is the start of discussion with the universities, nothing is set in stone.
- John Bloom: Had trouble prioritizing the list. If the County is already tracking some of these, why should we have the universities take on the task? He'd like to give universities wide latitude on how they could help.
 - Jonathan: The universities asked the EC to explain what we need and what we want them to do.
- Scott Dicke: Might be useful to add another item: cost of carbon.
- Vote: Refer this prioritization list to the universities as a starting point reference and to keep in close contact with AIRE along the way. Vote: Eight Yays, one Nay (John Bloom, as he thinks the letter needs more work).

8. Intro to EC Charter (9:20) - Stephanie Burns

- Tabled until next month.

9. New business/ Other member updates (9:25)

- Next month, Stephanie will present new EC Charter. Draft should be ready by next month.

10. Adjourn (9:30)

- Meeting adjourned at 9:38 am

ATTACHMENT 1
Demetra McBride presentation

Energy Committee

10-March-2021

AIRE Overview

2021/22 Energy All Sector Programs



TRANSPORTATION



EV TCO (total-cost-of-ownership) Comparative Study (completion March 2021)

Companion EV-101 Web-Section (Launch est. April 2021)

ARTBus BEV Study (completion Sept/Oct 2021)

EV-Ready Community Master Plan (launch April 2021; est. complete July 2022)

Decarbonizing Transportation Lit Review (done)

Arlington County Fleet Matrix (done)

Energy Assurance Plan (Resilience), launch March 2021, estimated completion Feb 2022

RAMP (Risk Assessment & Management Project), estimated completion Feb 2022

2020 Green Building Bonus Analysis (est. completion April 2021)

Net Zero Energy Feasibility Study for Affordable Housing (done)



BUILDINGS / RESILIENCY

ELECTRIFICATION – TRANSPORTATION (GOVERNMENT) (CONCURRENT ACTION)



PLANNING

TCO Study
EV-Ready Community M.P.
(incl. EVSE siting plan)

ARTBus Study
Energy Assurance Plan
- **Projected Demand**
- **Grid Capacity**
- **Building Capacity**



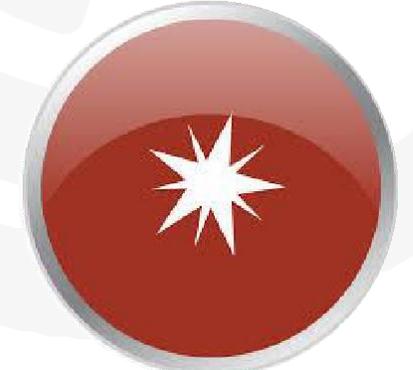
FLEET TRANSITION

Life-Cycle Replacements
10 sedans FY21
Expanding vehicle classes FY22
BEB Analysis
Tracking medium duty vehicle
models/performance



ANALYSIS

GHG reductions/\$/Action
Funding Source(s)
Tracking Alternative Funds
Shovel-Ready Planning
Pace Demand to Infrastructure



COMMUNICATIONS

Branding Clean Transpo
Demonstration Modeling
De-Mystifying EVs
Educate, Translate & Advocate



OPERATING FY 22

Filling EPM Position
No Budget Cut

1-Time Funding Available on

Opportunity

**Cross-Departmental Key Measures
(e.g., Fleet, WPTP)**

OTHER FUNDING OPPORTUNITIES

3RD-PARTY SOLAR PPA

Lubber Run Facility (contract Q3 '21)

State RGGI Funding for LMI/DAC Plan for Grant Program
(Fall 2021) State Incentives

EV Rebates (~ appropriation)

Federal Funding

1st Possible NOFA for EVSE



CAPITAL FY 22

PAYG

Lighting
Building Audits
Equipment Upgrades

Energy CIP

EVSE Siting/Installation
Energy Window Replacements

Cross Departmental

AH, Facilities, ARTBus



THANK YOU

DMCBRIDE@ARLINGTONVA.US

COVID CONTACT: 571-317-9535

[HTTPS://ENVIRONMENT.ARLINGTONVA.US/ENERGY/](https://environment.arlingtonva.us/energy/)

ATTACHMENT 2
EC letter regarding EVs

Climate Change, Energy and Environment Commission
c/o Department of Environmental Services
2100 Clarendon Blvd., Suite 705
Arlington, VA 22201

March 22, 2021

Mr. Matt de Ferranti
Chair
Arlington County Board
2100 Clarendon Boulevard, Suite 300
Arlington, VA 22201

RE: Comments on County Fleet Transition to Zero-Emissions

Dear Chair de Ferranti:

The Climate Change, Energy, and Environment (C2E2) Commission, in consultation with the Energy Committee, encourages the Board to accelerate the shift of the County's fleet to carbon neutrality. The Community Energy Plan (CEP)'s Policy 4.3 set a goal of "by 2050" to reach this benchmark. However, that date is too far from now, if Arlington is to do our part to mitigate the existential threat of climate change. Transitioning the county's fleet is low hanging fruit and procurement decisions the County makes now will impact emissions years into the future. For background:

1. The County Government's own study says electric vehicles (EV)s' Total Cost of Ownership (TCO) are cost competitive today. The Transportation Electrification Comparative Study prepared by the County's contractor ICF shows that an EV sedan's TCO is less than that of a comparable gasoline-fueled, "internal combustion engine" (ICE) sedan. Therefore, the County's economical default should be to replace end-of-use County Fleet sedans with EVs. Even if EV SUVs today cost slightly more than ICE models, the TCO of such EVs is rapidly falling. Moreover, a recent International Energy Agency study illustrates the imperative of Arlington County immediately beginning to replace ICE SUVs with EVs. This study shows that SUVs are the second largest cause of the global rise in carbon dioxide emissions (second only to power generation). The County today must begin procuring exclusively EV sedans and SUVs, to be part of the climate change solution, because of both impact on our community, and economics.

2. Federal government mandates accounting for the social cost of carbon, so should Arlington. Arlington County should at a minimum apply the same calculation of the *social cost of carbon* that President Biden has directed the Federal Government to incorporate into federal procurements (\$51 per ton of carbon emitted). In doing so, Arlington will be considering the realistic cost to our community of using ICE vehicles. In doing so EVs consistently represent a lower TCO than ICE vehicles, saving the County money.

3. EV trucks and equipment entering the market have a lower TCO and should begin replacing the county's current diesel vehicles. More EV truck brands and models are entering the market every year. There will soon be EV trucks available for every truck class in the County's fleet. Volvo and Mack Trucks even manufacture some of these EVs in Virginia. If the County utilizes federal incentives, it can economically buy EV trucks today. If Arlington took a wholistic accounting of ICE trucks' costs, to include Social Cost of Carbon, even with their sticker price premium, EV trucks already save the County in TCO.

4. Financing mechanisms and incentives exist to lower EVs' upfront costs.

a. *Upcoming federal incentives:* During the campaign, President Biden pledged to electrify all American-made buses by 2030, specifically funding procurement of 500,000 American-made EV school buses nationally. The County should formally track these programs and prepare to apply when they become available.

b. *Existing federal incentives:* Existing federal EV programs that already exist will likely expand, and Arlington should be preparing to apply for such funds, to include:

i. EPA Diesel Emissions Reduction Act (DERA) grants,

ii. US Department of Transportation/Federal Transit Administration (FTA) grants

iii. Department of Energy (DOE) grants

c. *Private-sector incentives:* Greg Emanuel, Arlington's Director of Environmental Services (DES), explicitly told the County Board on March 2nd, 2021 that he has thousands of dollars available for CEP-supporting studies. Mr. Emanuel should use these funds to research private sector grants for EVs such as those from the Bezos Foundation.

d. [research more]

5. Arlington is falling behind other jurisdictions in EVs. In addition to commitments by large cities such as Los Angeles and New York City, medium and small jurisdictions around the country are pledging to transition their city fleets to EVs. Among Arlington's neighbors, Montgomery County and the City of Alexandria are both far ahead in electrifying their government fleets. 25% of Alexandria's fleet will be EVs by 2022 and Montgomery County just announced its plan to replace all its school buses with EVs. [other jurisdictions in the Commonwealth that are acquiring EVs -- Hampton Roads, Blacksburg, Fairfax County?]

6. State level support is clear. On February 23rd, 2021, the Virginia Senate passed a "clean cars" bill to increase the number of zero-emission vehicles, requiring 8% of vehicles sold be EV or hybrid by 2024 (with an increasing percentage over time). The County should proactively align with this upcoming mandate, and become a leader in EVs for the rest of the Commonwealth.

In the context of the CEP's Policy goals, the ICF report results, and the rapidly improving economics of EVs' TCO, **we strongly recommend the County adopt a policy right now requiring all vehicle procurement be limited to zero emission vehicles (ZEVs), unless there is a written, public justification that no ZEVs are available on the market that can meet the County's requirements.** Any justifications stating the ZEV's sticker price is higher than the ICE's, should show: (i) the ICE TCO is less than the ZEV's; and (ii) the County applied for all applicable federal, state, and private incentives.

Moreover, the County's own ICF study sets a baseline for justifying a **new policy articulating that today, unless a ZEV's TCO exceeds its comparable ICE's by 50% the ZEV is still a more economical choice.** Thus, we strongly urge your action codifying these conclusions of the County's report.

We appreciate your serious consideration of these concerns and recommendations.

Respectfully,

Joan McIntyre
Chair, C2E2

Tim Effio
Vice-Chair, C2E2

CC: Mr. Mark Schwartz, County Manager
Ms. Shannon Flanagan-Watson, Deputy County Manager
Mr. Greg Emanuel, Director, Department of Environmental Services (DES)
Ms. Demetra McBride, Chief, Office of Sustainability and Environmental Management, DES