

Electrifying Transportation for Climate Action and Clean Air in Alexandria

Northern Virginia/Washington IEEE PES/IAS
November 18, 2020

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Energy Manager
City of Alexandria



Today's Discussion

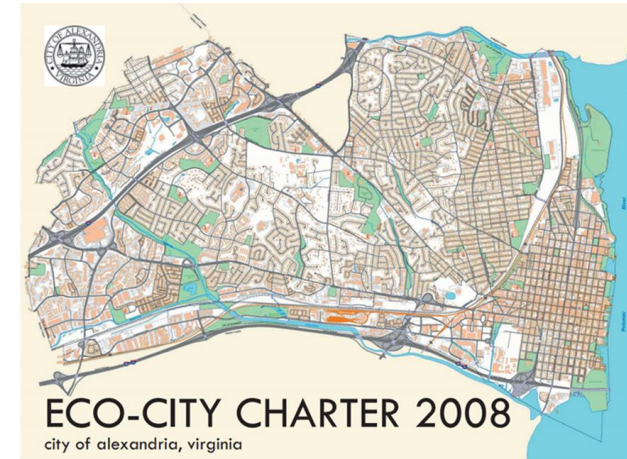
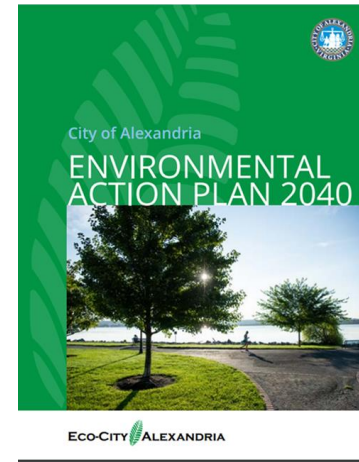
- Background and Context Setting
- City Fleet Electrification
- DASH Zero-Emission Bus Program
- Electric Vehicle Charging Infrastructure Readiness Strategy
- Electric School Bus Pilot Program
- Advocating for Transportation Electrification

Alexandria, Virginia

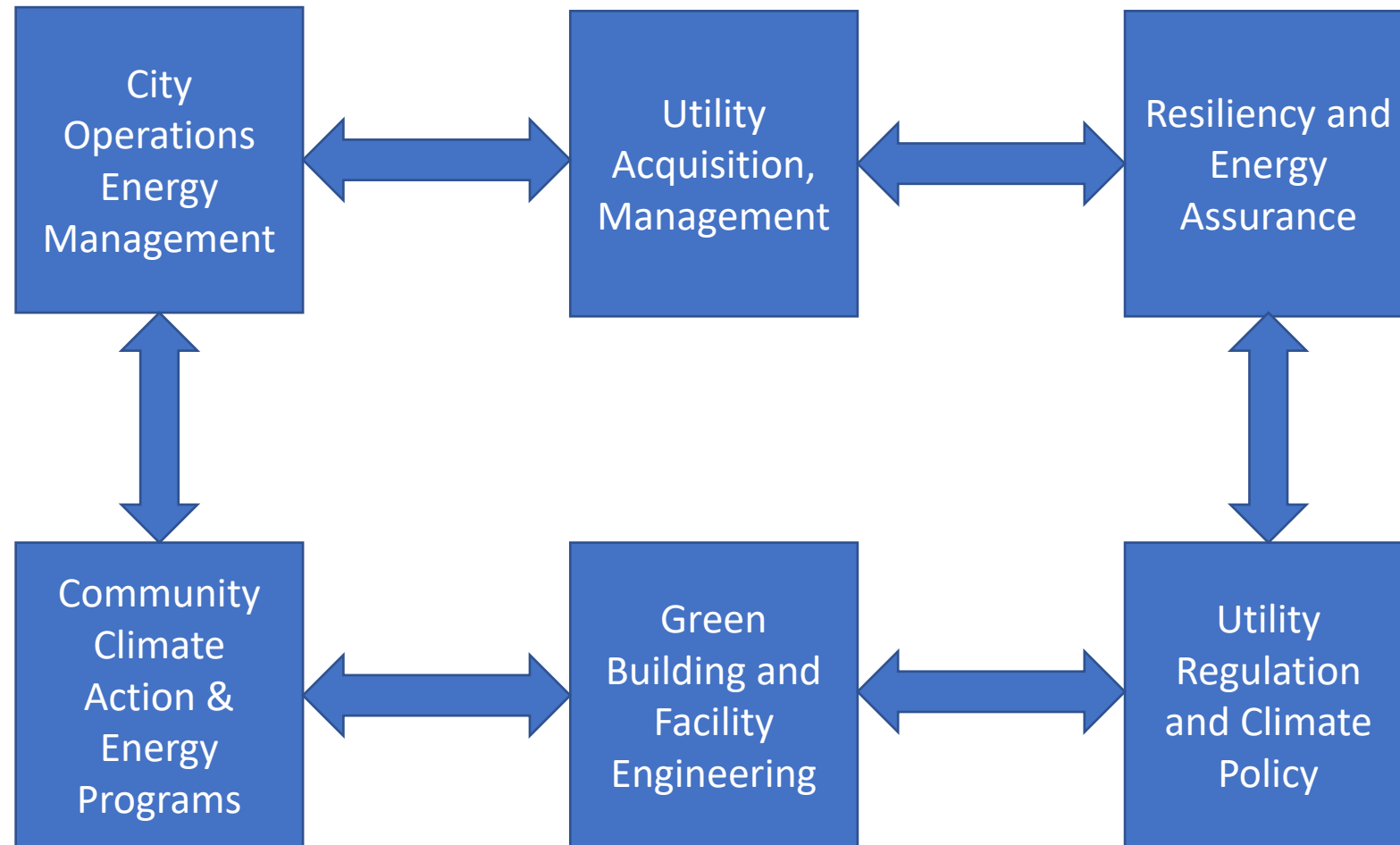


- Metropolitan Washington Region
- Population ~150,000
- Area 15.2 mi²
- Mixture of vibrant urban & historic neighborhoods
- 7-member, at-large City Council
- Elected Mayor
- Mayor-Manager form of government

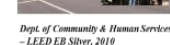
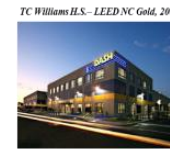
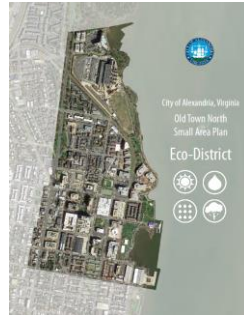
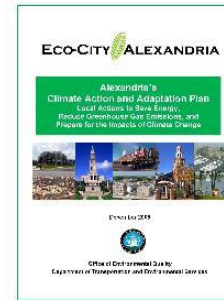
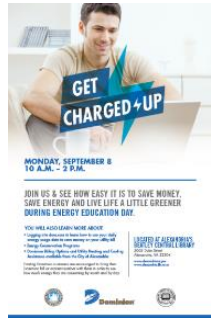
City Council Strategic Plan, Eco-City Alexandria, and Environmental Action Plan 2040



Office of Energy Management



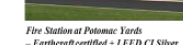
Office of Energy Management



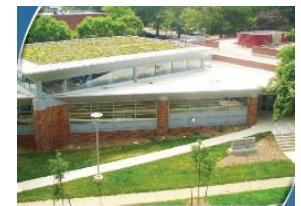
TC Williams HS – LEED NC Gold, 2009
DASH Admin & Bus Warehouse – LEED NC Gold, 2009
Dept. of Community & Human Services – LEED EB Silver, 2010



Alexandria Police Department – LEED NC Gold, 2012
Fire Station 2010, LEED BD&C Gold, 2018



Jefferson Houston E.S. (In Design, 2014)
Charles Houston Recreation Center – LEED NC Gold, 2010
Fire Station at Potomac Yards – Earthcraft certified + LEED CI Silver (awaiting certification, 2013)



Office of Energy Management

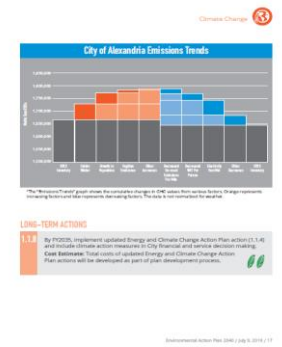
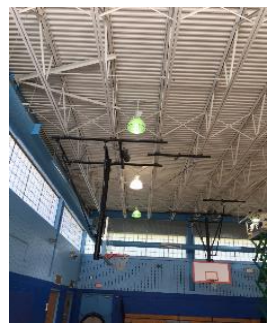
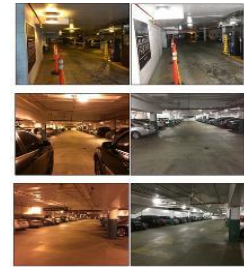
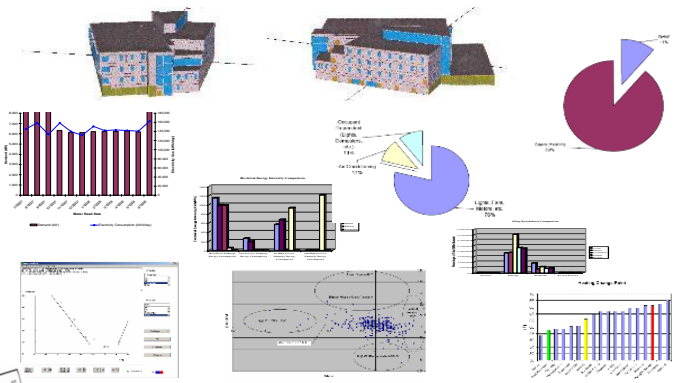
ALEXANDRIA ENERGY MANAGEMENT PROJECTS

DASH BUS DEPOT

The new DASH depot will save 10 years in energy and utility costs, improve energy efficiency and save nearly 70% in electricity over the previous depot. The project will result in 100,000 kWh and 100,000 kWh of energy savings. Additionally, the city's greenhouse gas emissions will be reduced by about 100,000 lbs CO2e per year.

ESTIMATED ANNUAL SAVINGS:

- 400,000 lbs CO2e
- 100,000 kWh
- \$40,000



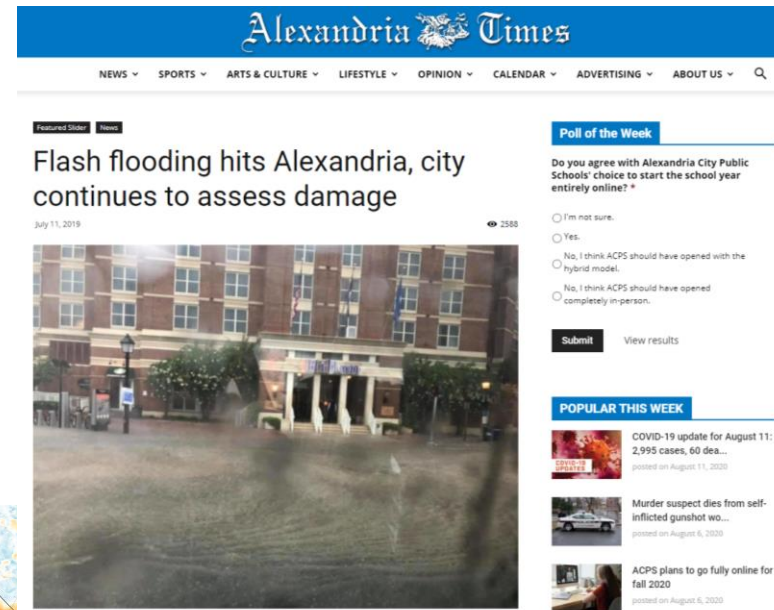
Alexandria Electric Vehicle Infrastructure Readiness Strategy

Eco-CITY ALEXANDRIA November 2012

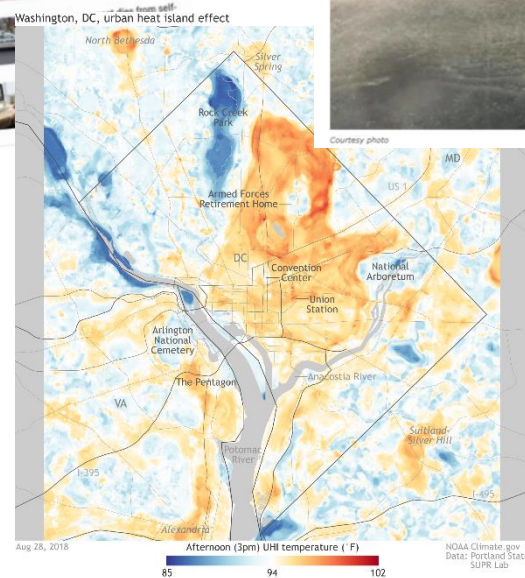


Why Alexandria is Working to Electrify Transportation

Climate Impacts



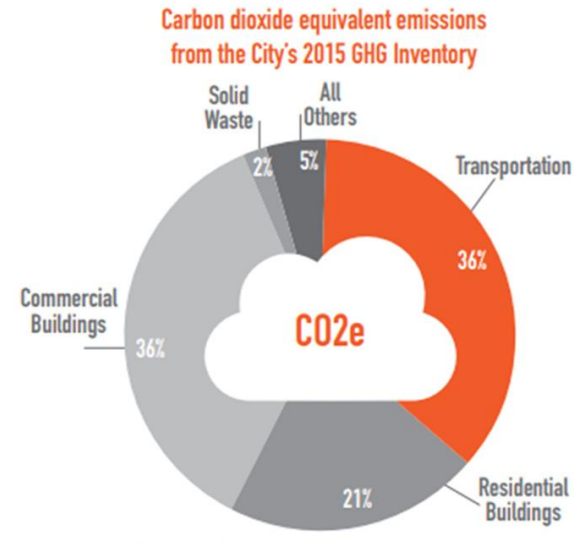
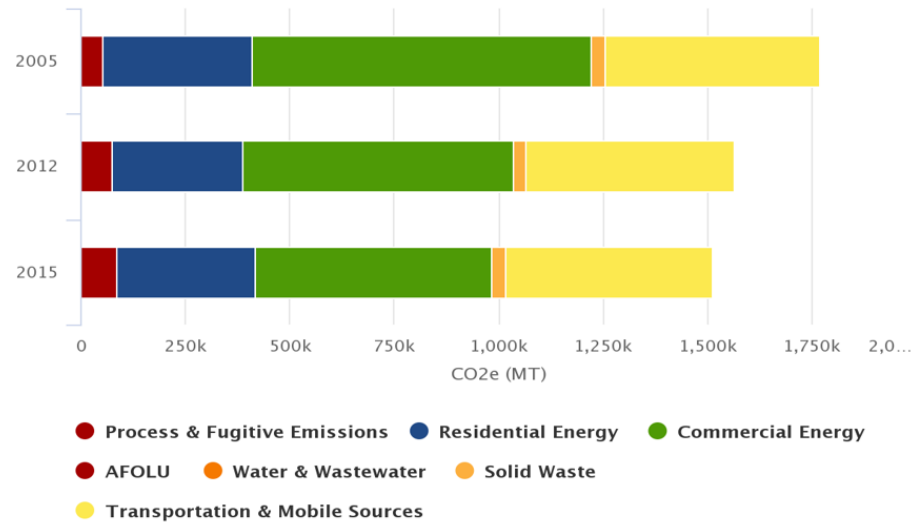
Source: Alexandria Times, 7/11/19



Greenhouse Gas Emissions and Climate Action

COMMUNITY GREENHOUSE GAS INVENTORY GREENHOUSE GAS TRENDS CHART - CITY OF ALEXANDRIA

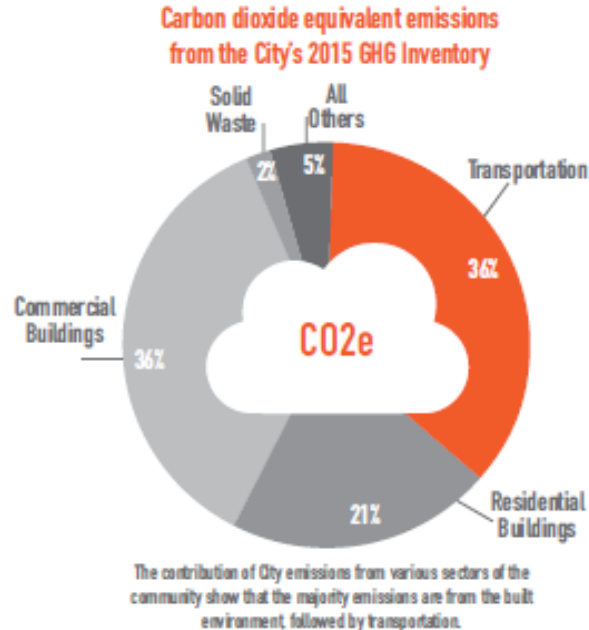
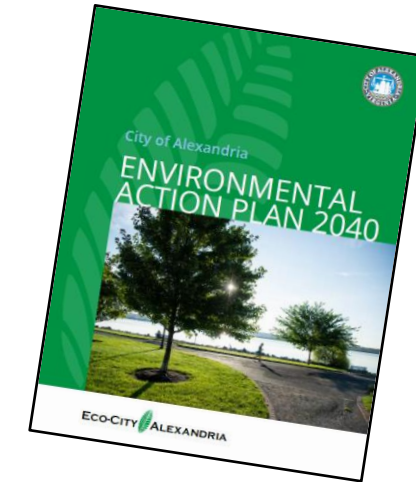
Alexandria greenhouse gas emissions decreased by 15% from 2005 to 2015.



Source: ClearPath output
Note: ClearPath is an online greenhouse gas inventory tool. ClearPath is a product of ICLEI - Local Governments for Sustainability.

Climate Action – Transportation Electrification

- Action 2.3.3 – By FY2020, develop a strategy for community electric vehicle charging infrastructure.
- Action 2.3.6 - By FY2029, implement and support the implementation of a publicly-accessible electric vehicle charging infrastructure that is supported by renewable energy supply.



- Action 2.1.6 – By FY2040, implement electrification of all City non-electricity energy use (City facilities, operations, and vehicles).
- Action 2.2.1 –By FY2021, initiate electric passenger vehicle pilot programs for DASH, Alexandria City Public Schools, and the City vehicle fleet to evaluate costs, benefits, technical feasibility, and implementation opportunities to transition City fleet vehicles to electric vehicle technology, and install vehicle charging infrastructure at City facilities.
- Action 2.2.5 – By FY2024, implement electrification of, at minimum, 25 percent of applicable nonelectric passenger City fleet vehicles consistent with Fleet Replacement Plan criteria and scheduled replacement.
- Action 2.2.6 – By FY2028, implement electrification of, at minimum, 10 percent of DASH, rapid transit routes, and King Street Trolley buses. Provide necessary electric vehicle charging infrastructure at City facility locations.
- Action 2.2.8 – By FY2040, implement electrification of all non-electric City vehicle fleets and include ACPS, DASH, rapid transit routes, heavy-duty equipment and vehicles. Provide necessary electric vehicle charging infrastructure at City facility locations.

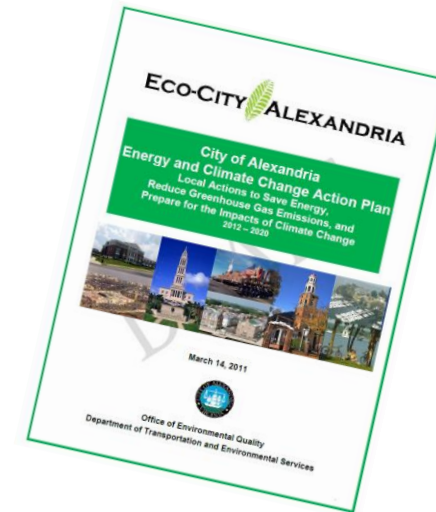
Climate Action – Renewable & Clean Energy/Electrification

By 2030, reduce greenhouse gas emissions by 50%

By 2050, reduce greenhouse gas emission by 80~100%

Accelerate feasible energy efficiency, electrification, and renewable & clean energy implementation and emission reduction measures for City-owned buildings and infrastructure, and City-owned transportation.

Pursue an optimal mix of renewable energy electricity generation on City facilities and operations, renewable energy electricity generation sourced from the region (no less than 50%), and Renewable Energy Certificates.








Beatley Central Library

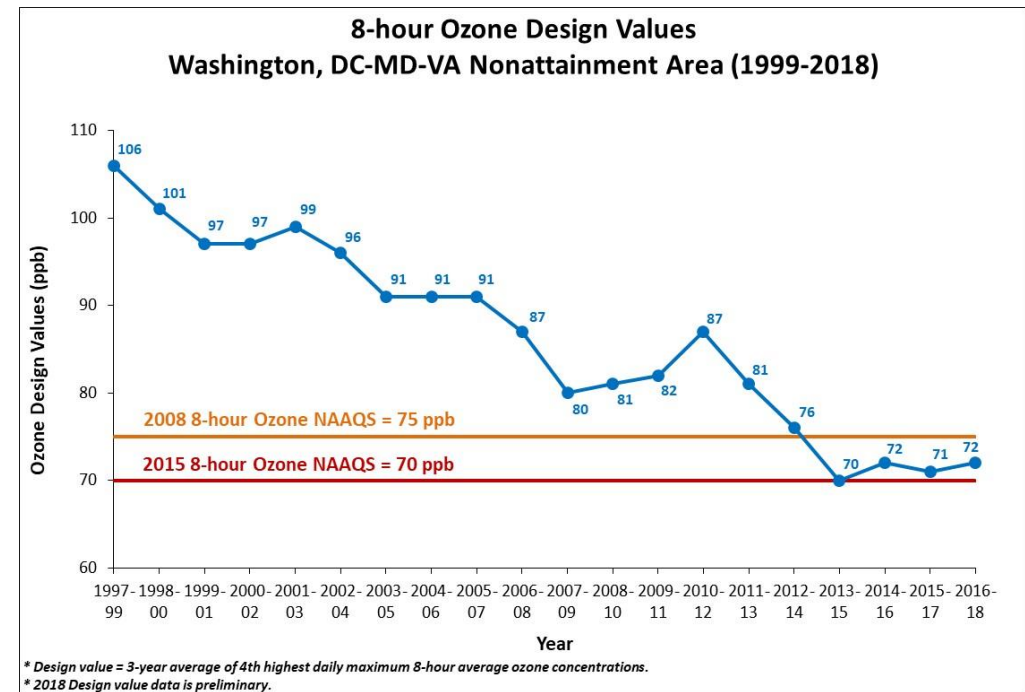


Dominion Energy Scott Solar Facility (Source: Richmond Times Dispatch)

Local Air Quality

Air Quality Pyramid

Air Quality Code	Steps to Protect Your Health and Our Environment
	Air pollution poses little or no health risks. Enjoy the great outdoors!
	Some pollution poses risk to highly sensitive groups <ul style="list-style-type: none"> • Carpool, use public transit, bike or walk • Limit driving, consolidate trips • Reduce car idling
Air Quality Action Days	
	Pollution levels harmful to children, the elderly, and anyone with respiratory or heart conditions - limit outdoors activity. <ul style="list-style-type: none"> • Follow all action steps above • Refuel after dusk, use fuel-efficient vehicles • Avoid driving, use transit, telework • Avoid using aerosol products
	Pollution levels harmful to all - everyone should limit strenuous outdoor activity when the air is unhealthy to breathe. <ul style="list-style-type: none"> • Follow all action steps above • Avoid using any gas powered equipment • Wait to paint until air quality improves
	Pollution levels very unhealthy for everyone <ul style="list-style-type: none"> • Avoid any physical activity outdoors



City Fleet Electrification

Alternative Fuels Policy

- Policy Priorities

- Maximize efficiency and utilization of fleet
- Reduce total vehicle emissions by 25% over the next 10 years
- Policy recognizes that alternative fuel may not work in all cases now, but allows for future use as proven technology is developed

- Policy Actions

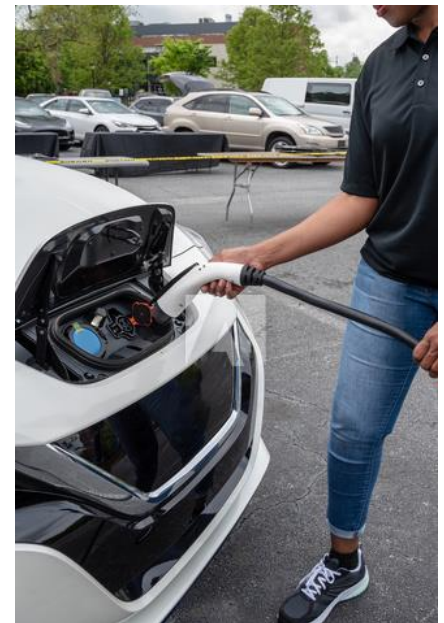
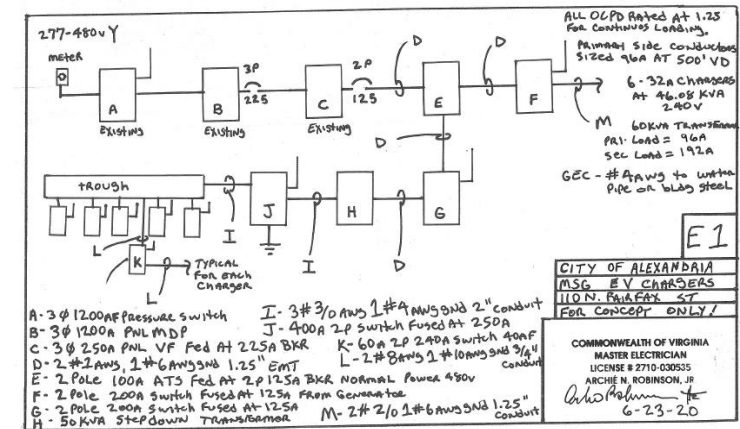
- Optimize Fleet Size
- Best Practices to Minimize Vehicle Miles Traveled
- Reduce Vehicle Size
- Technology solutions:
 - Increase Average Fuel Economy
 - Decrease Vehicle Emissions
 - Increase Use of Alternative Fuel vehicles and equipment with focus on electrification

Introducing EV's Into the City Fleet



Expanding City EV's

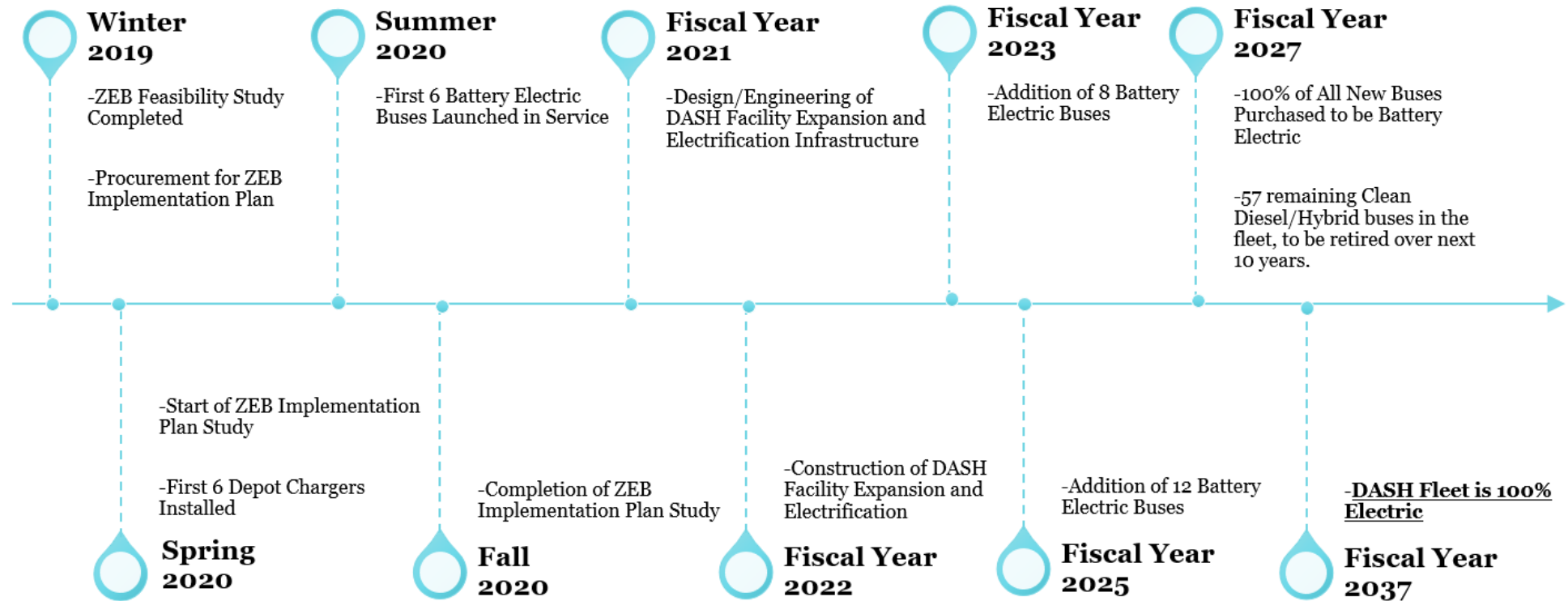
- Building out a charging infrastructure
- Advancing innovative rate design
- Pursuit-rated vehicles, work trucks, heavy diesel alternatives
- Integrating facility and EV infrastructure resilience
- Shared use EV charging infrastructure
- Vehicle-to-building (V2B)
- Aggressive energy efficiency, beneficial electrification, achieving net-zero energy with on- and off-site renewable and clean energy resources
- Employee education and training



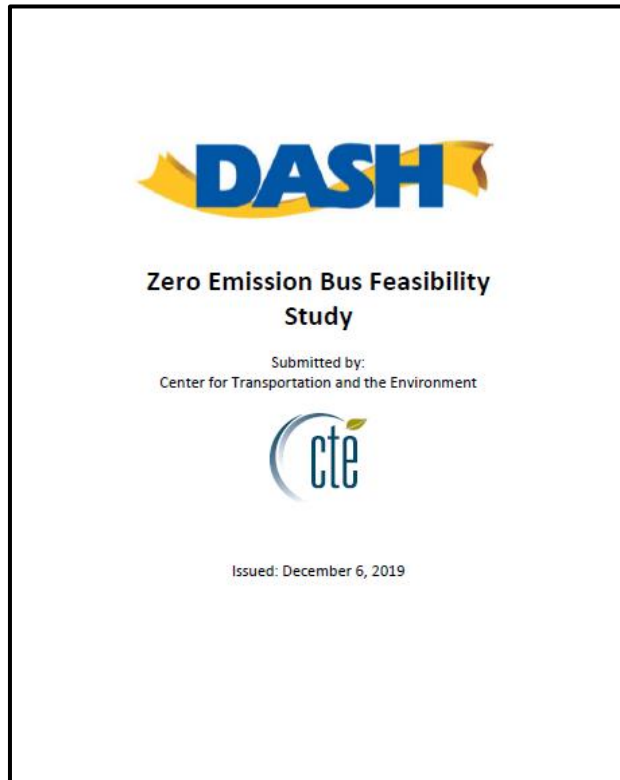
DASH Zero-Emission Bus Program



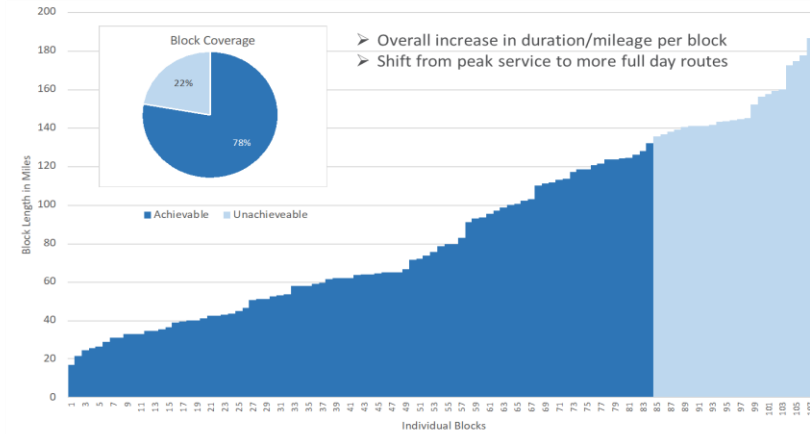
Electrification Timeline



ZEB Feasibility Study



Block achievability with BEB on one charge 2030 Vision route structure



Estimated Buses Required using 2.7 kWh/mi BEB efficiency

	Current Fleet	BEB 1:1	BEB 2:1	BEB Total	FCEB Total
# buses operating	81	70	22	92	81
# buses w/spares*	99			112	99

	Current Fleet	BEB 1:1	BEB 2:1	BEB Total	FCEB Total
# buses operating	94	70	48	118	94
# buses w/spares*	118			148	118

For high level scoping only. Recommend route modeling for most accurate planning due to variations in efficiency across routes & conditions.

e.g. changing efficiency here from 2.7 kWh/mi to 3.0 kWh/mi increases BEB requirement by 11 buses

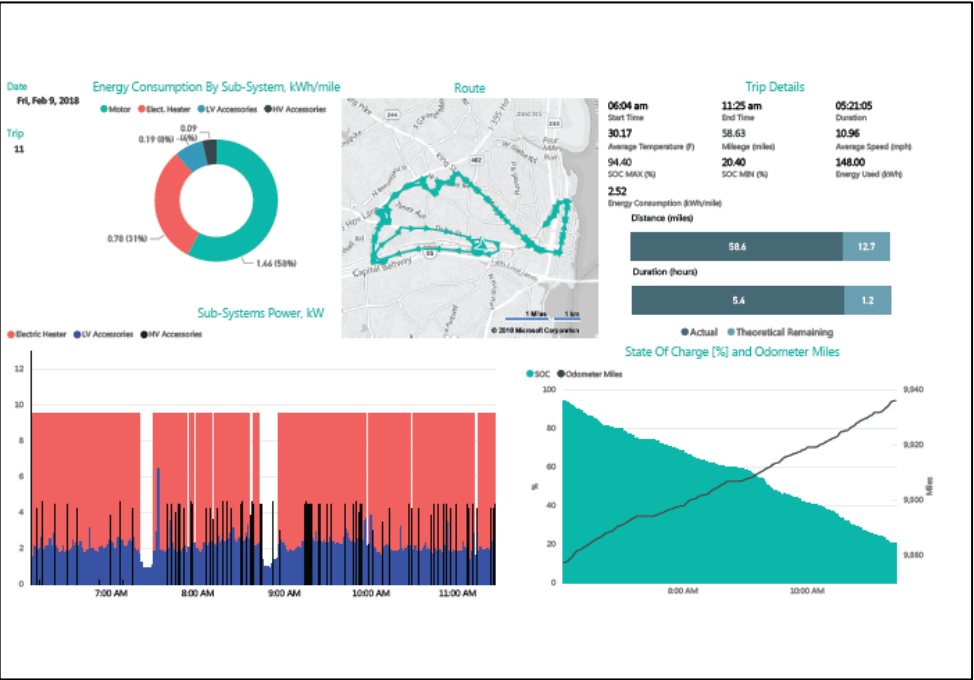
Bus pricing suggested for planning:

- \$920K for BEB
- \$1.3M for FCEB

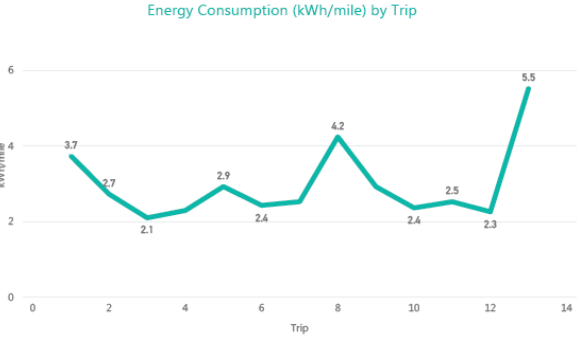
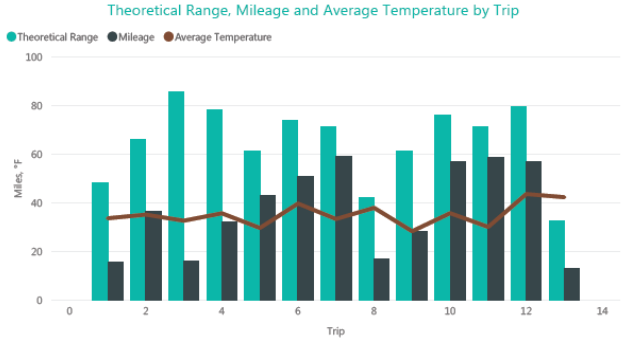
Battery Electric Bus Pilot Program



Battery Electric Bus Pilot Program Evaluation



Date	Trip id	Start Time	End Time	Duration	Mileage (miles)	SOC MAX (%)	SOC MIN (%)	Energy Used (kWh)	Energy Consumption (kWh/mile)	Fuel Economy (MPG Diesel Equivalent)
Sun, Feb 4, 2018	1	12:42 pm	04:48 pm	04:05:32	15.63	91.20	62.00	58.40	3.74	10.07
Mon, Feb 5, 2018	2	05:36 am	09:30 am	03:54:03	36.67	94.80	44.80	100.00	2.73	13.80
Mon, Feb 5, 2018	3	11:18 am	12:59 pm	01:41:02	16.01	94.40	77.60	33.60	2.10	17.94
Mon, Feb 5, 2018	4	03:53 pm	07:26 pm	03:33:02	32.09	94.00	57.20	73.60	2.29	16.41
Tue, Feb 6, 2018	5	04:51 am	10:06 am	05:15:04	43.19	94.40	31.20	126.40	2.93	12.86
Tue, Feb 6, 2018	6	02:46 pm	08:31 pm	05:45:05	51.05	95.20	33.20	124.00	2.43	15.49
Wed, Feb 7, 2018	7	05:22 am	10:46 am	05:24:32	59.21	95.20	20.40	149.60	2.53	14.90
Wed, Feb 7, 2018	8	03:37 pm	08:33 pm	04:56:22	16.97	94.40	58.40	72.00	4.24	8.87
Thu, Feb 8, 2018	9	08:34 am	12:18 pm	03:44:01	28.18	92.40	51.20	82.40	2.92	12.87
Thu, Feb 8, 2018	10	03:39 pm	08:38 pm	04:59:02	57.25	94.80	27.20	135.20	2.36	15.94
Fri, Feb 9, 2018	11	06:04 am	11:25 am	05:21:05	58.63	94.40	20.40	148.00	2.52	14.91
Fri, Feb 9, 2018	12	03:29 pm	09:27 pm	05:58:04	57.00	94.80	30.40	128.80	2.26	16.66
Sat, Feb 10, 2018	13	07:24 am	12:34 pm	05:10:20	13.20	90.80	54.40	72.80	5.52	6.82
Total		12:42 pm	12:34 pm	23:51:39	485.07	95.20	20.40	1,304.80	2.97	12.69

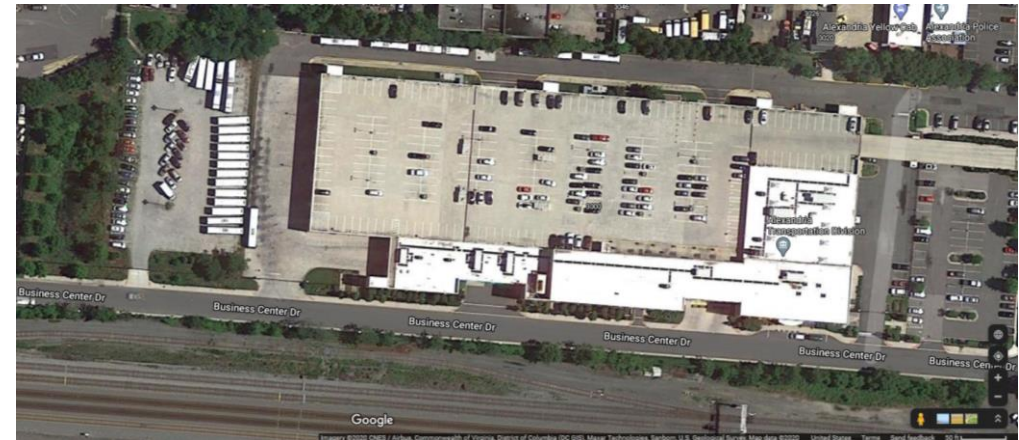
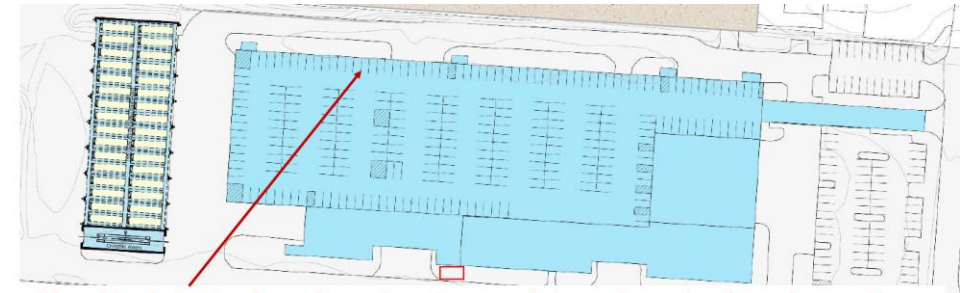


Considerations and Challenges

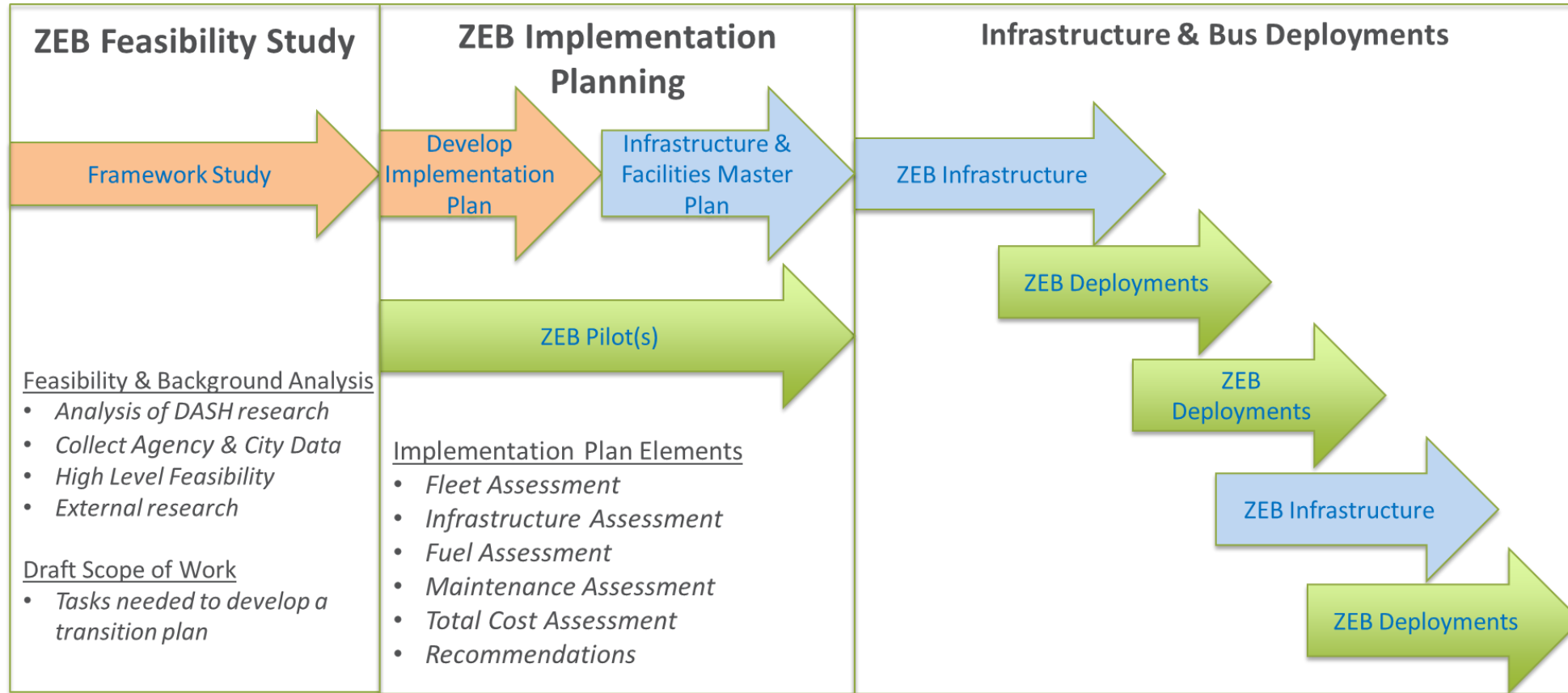


OTHER CONSIDERATIONS

- **Electricity Intensity**
 - At full implementation, adding equivalent of more than the Empire State Building worth of electrical load
- **Utility Infrastructure**
 - Unknown needs for upgrades/capacity increases in utility distribution and transmission infrastructure
 - Utility infrastructure investment considerations (ex. GTSA)
- **Resiliency and Reliability of Electricity Supply**
 - Backup generation capacity (generators, microgrids, solar + storage, etc.)
- **Renewable Electricity Supply (i.e. Solar/Renewable Energy)**
 - Electricity grid greenhouse gas emissions
 - Limited local land area for renewable energy generation
- **Witter-Wheeler Campus Master Plan**
 - Considerations for land use in the area around DASH
 - Electrification of City's vehicular fleet
 - Electrification of ACPS's school bus fleet



ZEB Implementation Planning



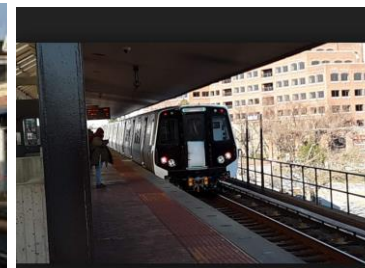
Electric Vehicle Charging Infrastructure Readiness Strategy

Alexandria's Transportation Systems



Today's Transit:

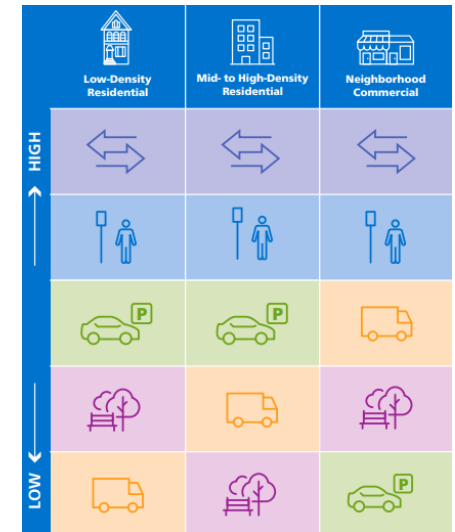
- 31 WMATA Metrobus routes
- 11 Alexandria DASH routes
- 1 Trolley Circulator
- 765 Bus stops
- ~25,000 Daily bus riders
- 31 bike share stations
- 4 Metrorail stations
- 1 VRE/Amtrak station
- 1 Built Transitway corridor
- ~15,000 Daily Metrorail riders
- ~800 Scooters



Alexandria Mobility Plan

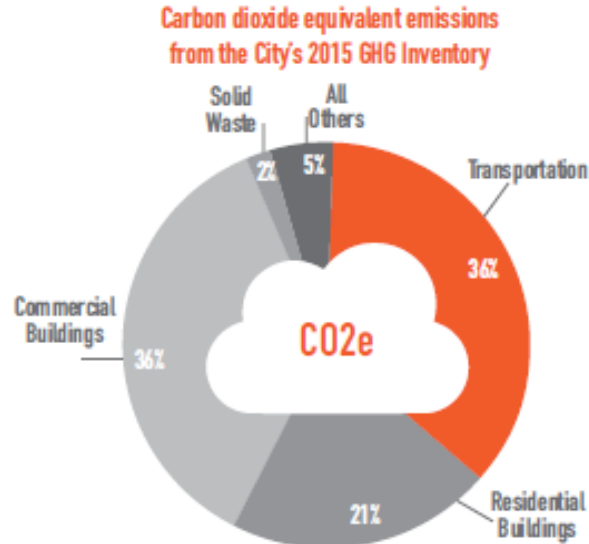
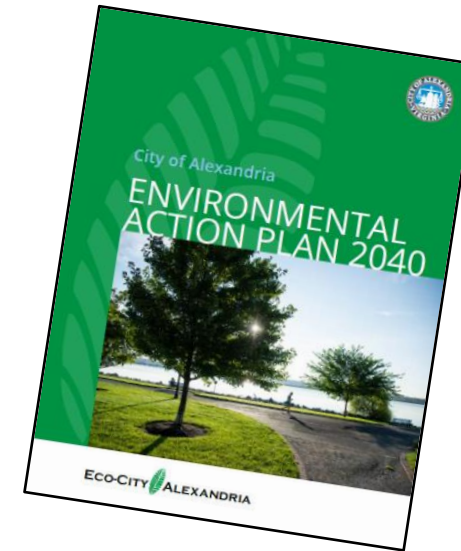


- Reduce VMT
- Expand City's bicycle and pedestrian network
- Increase the share of mobility trips rather than than single occupancy vehicle trips
- Increase miles of dedicated bus infrastructure
- Increase electric passenger cars in the City fleet
- Increase electric transit vehicles in the DASH fleet



EVRS Motivations

- Action 2.3.3 – By FY2020, develop a strategy for community electric vehicle charging infrastructure.
- Action 2.3.6 - By FY2029, implement and support the implementation of a publicly-accessible electric vehicle charging infrastructure that is supported by renewable energy supply.



The contribution of City emissions from various sectors of the community show that the majority emissions are from the built environment, followed by transportation.

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EVRS Motivations

36%

Percentage of Alexandria's greenhouse gas emissions from transportation (compared to 28% nationally)

53%

Percentage of residents without dedicated overnight parking

50%

Percentage of greenhouse gas reduction by FY 2030 as proposed by the City's Environmental Action Plan

100%

Percentage of renewable electricity in 2050, as proposed by VA legislature

EVRS Objectives

- Evaluate projections for current and future electric vehicle charging infrastructure needs
- Recommend locations for publicly accessible charging infrastructure with integration into a broader regional electric vehicle charging infrastructure network
- Recommend charging infrastructure options, including hardware, business ownership, operation models, interoperability, and operations and maintenance solutions
- Review the city's zoning, codes, permitting, and inspection codes, along with development processes and requirements, to recommend updated or new language to promote and anticipate electric vehicle charging needs
- Recommend policies, approaches, and synergies for locating electric vehicle charging infrastructure at businesses, multifamily dwellings (MFD), single-family homes, right-of-way (ROW) areas, and other locations

The EVRS also discusses synergies with other City plans and policies such as the Driving Alexandria Safely Home (DASH) zero emission bus projects, Transportation Master Plan and smart mobility goals.



Challenges to Charging in Alexandria

LIMITED OFF-STREET PARKING

Many areas in Alexandria have limited off-street parking for residents due to the dense and old vintage housing stock or other space restrictions. This means that—unlike in most other jurisdictions—residents sometimes lack the ability to install electric vehicle chargers at their home.

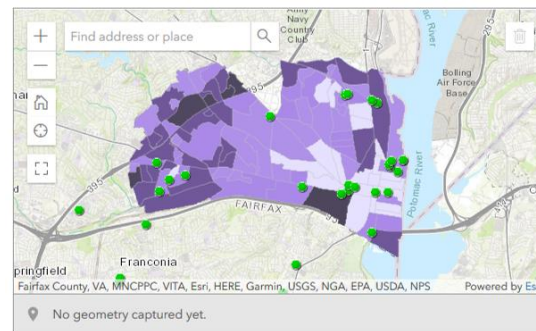
HIGH NUMBER OF MULTIFAMILY DWELLINGS

Alexandria has a relatively high share of apartments, condominiums, and other similar MFDs compared to the rest of the Commonwealth and Virginia. Finding charging solutions in MFDs can be challenging since parking spots are often shared, parking garages may have limited access to electricity supply, and high renter and high turnover rates means that building owners and homeowner associations are less inclined to install chargers.

EVRS Development Timeline

- January – March 2020
 - Engagement and input from City staff
 - Research and data collection on the City's existing policies, plans, and initiatives
- April – August 2020
 - Two virtual public engagement and input opportunities*
 - Pre-recorded presentation and online questionnaire to solicit public's EVRS priorities
 - Online questionnaire to evaluate charging needs and to help evaluate locations for publicly-accessible chargers

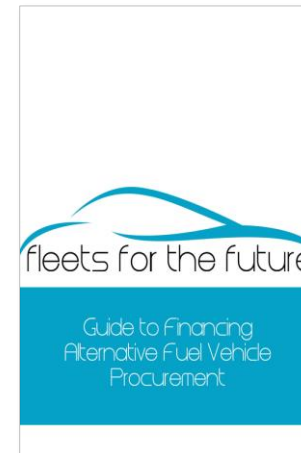
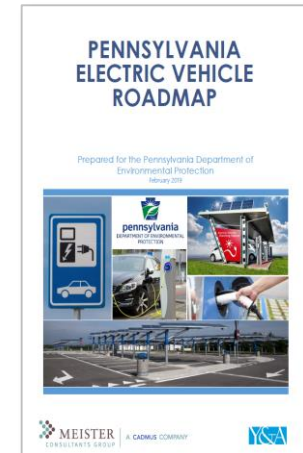
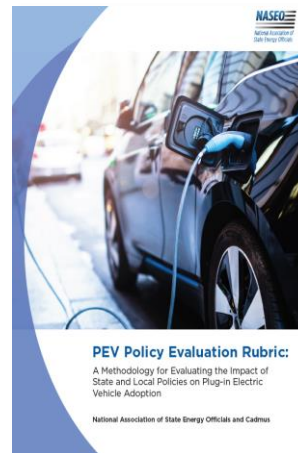
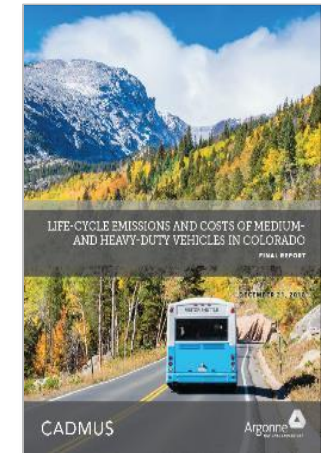
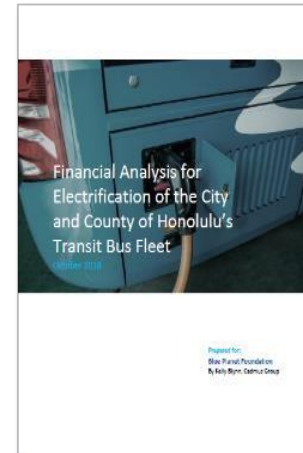
- September 2020 – Present
 - Strategy development
 - City staff reviews
 - Public presentations and public input



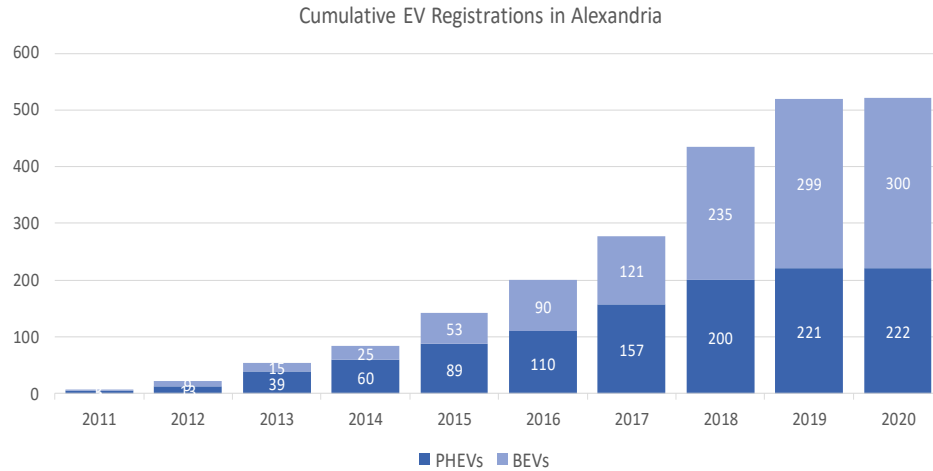
*Due to COVID-19 and cancellation of non-essential in-person community meetings, City staff provided a pre-recorded presentation for public engagement and online questionnaires to solicit public input.

EVRS Partner

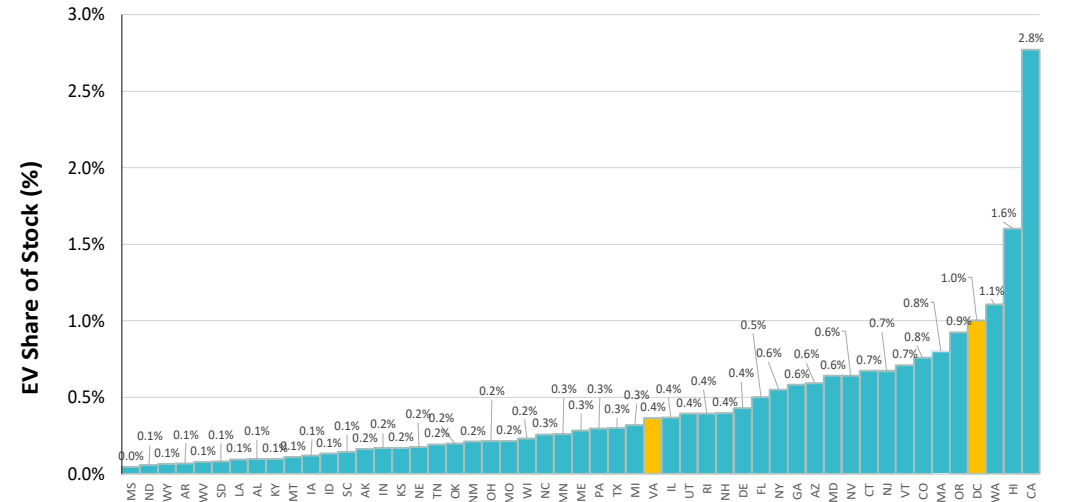
CADMUS



Electric Vehicles in Alexandria



Cumulative PHEV and BEV registrations in Alexandria as of April 2020.

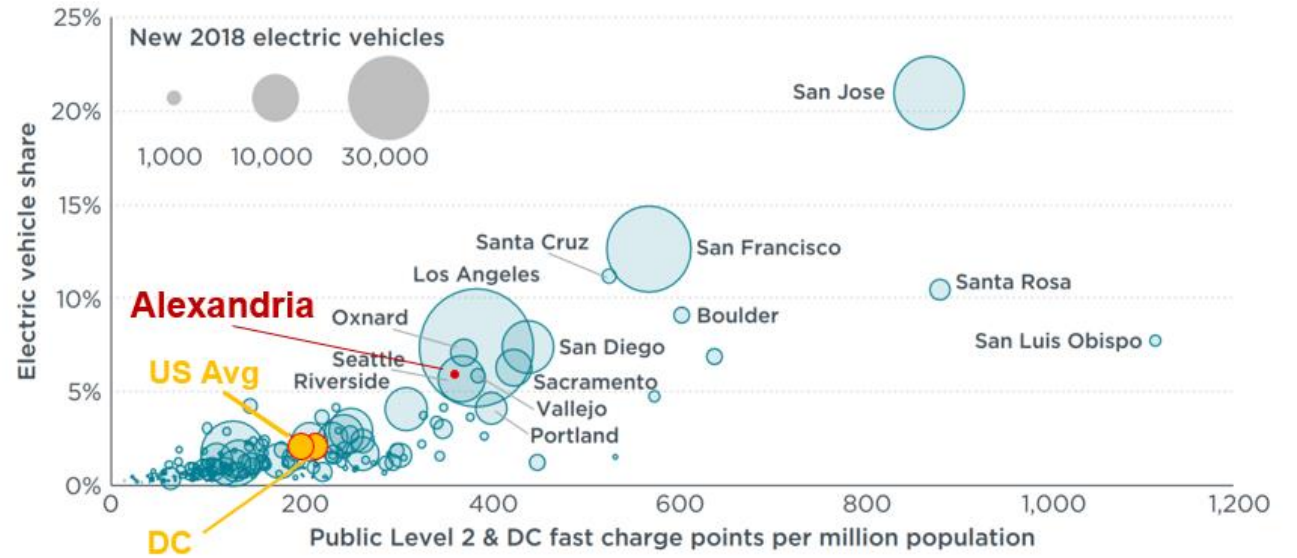


Share of ALL light-duty vehicles that are electric vehicle, by state, in 2020 (i.e., fraction of vehicle stock). Virginia ranks 22nd in electric vehicles.

Charging Availability in Alexandria

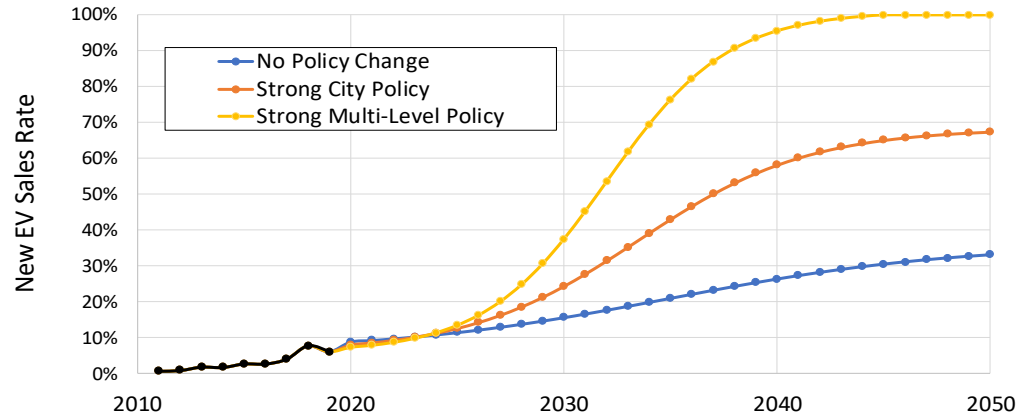
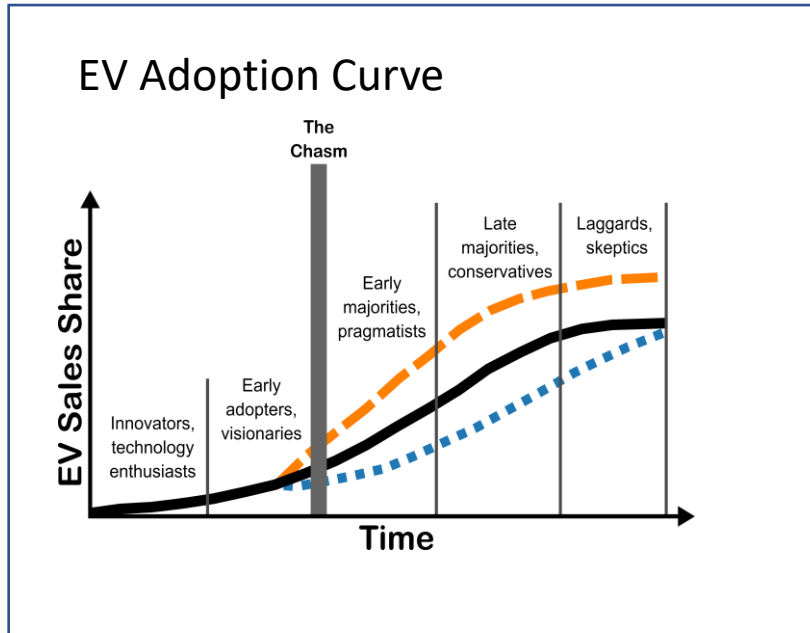


Map of shared EV charging stations in Alexandria. These include both publicly available and restricted access plugs.



EV share and public charging availability for U.S. cities.

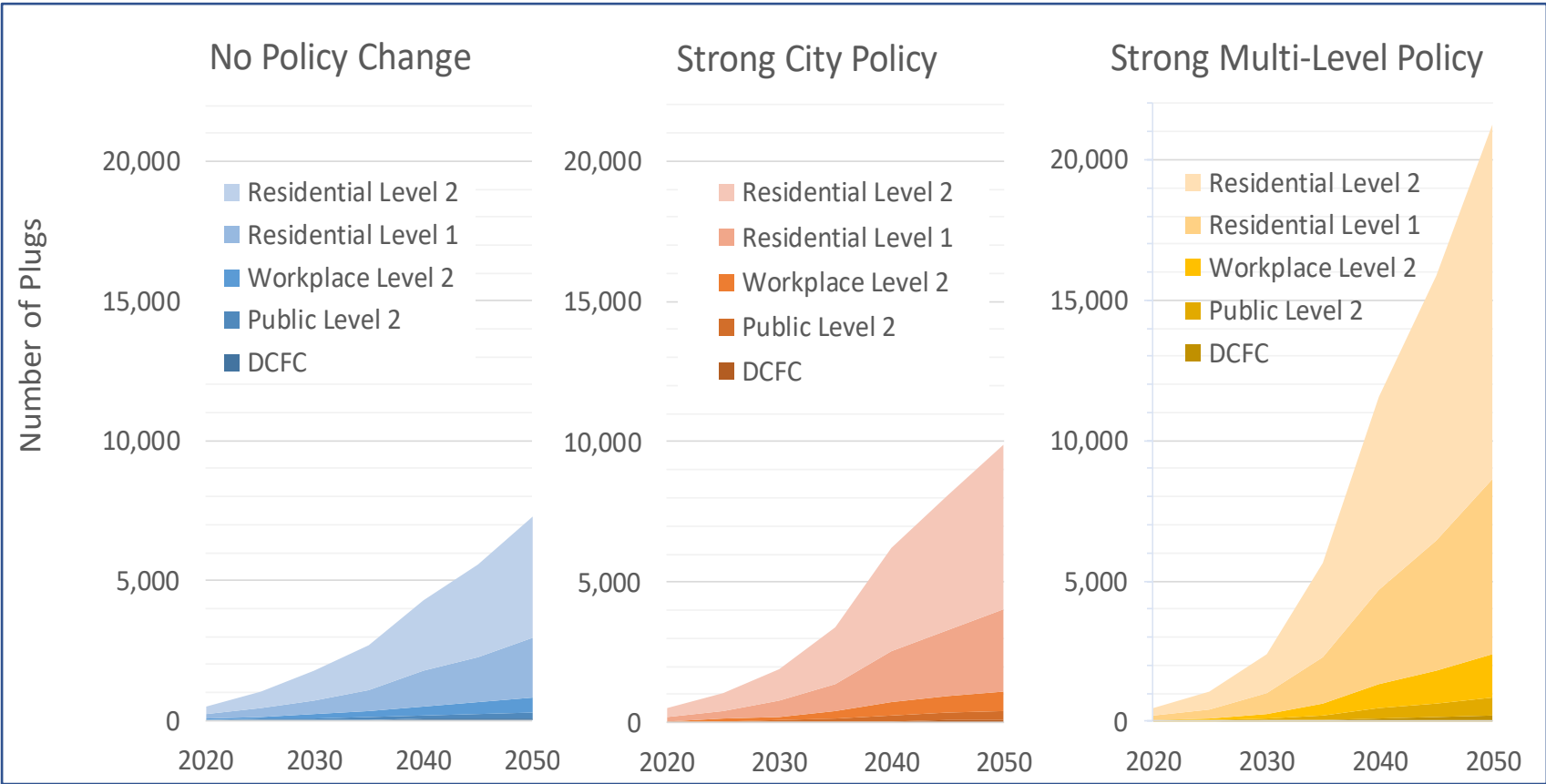
Increasing Electric Vehicle Adoption



Three possible pathways for electric vehicle adoption.


Scenario	Description	Why Scenario is Feasible
No Policy Change	Growth in electric vehicle adoption continues at historical rates.	Battery costs continue to decline and vehicles are nearing cost parity with ICEVs, suggesting that electric vehicle adoption will continue on its own, even without policy intervention.
Strong City Policy	The City of Alexandria implements a strong set of policies to support adoption of electric vehicles.	As witnessed in other cities, a strong role by municipal governments can impact electric vehicle ownership. The extent of the impact is highly uncertain.
Strong Multi-Level Policy	In addition to the City of Alexandria, federal and state governments are deeply involved in incentivizing electric vehicle adoption.	A strong environmental policy by all levels of government and by utilities could result in high levels of electric vehicle adoption.

Evaluating Charging Infrastructure Needs



Needed number of plugs to support electric vehicles in three scenarios. See Appendix E for numerical values in graph.

Identifying Charging Location Opportunities



Eco-CITY ALEXANDRIA

City of Alexandria Electric Vehicle Charging Infrastructure Scoring Map

The City of Alexandria is interested in supporting public access to electric vehicle (EV) charging for residents who cannot currently charge at home in a garage or driveway. To identify where publicly-accessible charging infrastructure may be most necessary, a multi-indicator scoring system was developed (Figure 1). This heat map combines many factors into a single score. The Scoring Map of the city in Figure 1 shows areas identified as higher priority (darker shades) and lower priority (lighter shades) for new public EV charging stations. The Scoring Map was developed through weighting process analysis of existing population data and the US Department of Energy's Alternative Fuel Data Center described below.^{1,2}

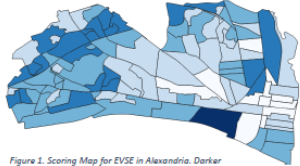


Figure 1. Scoring Map for EVSE in Alexandria. Darker shaded block groups indicate higher need for public EV charging.

Score Weighting Process

The city was spatially analyzed at the [US Census block group](#) unit. Using experience from other jurisdictions (see box to right), discussions with subject-matter experts, and relevant research, the City in partnership with Cadmus identified five factors that drive the need for public EV charging: (1) density of apartments and condominiums; (2) density of renters; (3) density of car commuters; (4) density of early adopters; and (5) density of existing EV charger access. Table 1 provides rationale for including each indicator. All indicators were normalized between 0 and 1 and multiplied by the weights in Table 1. Finally, the weighted scores were summed together for a composite score of 0 to 1 for each block group. Figure 1 shows these weighted scores.

A similar EV Scoring Process and Map was used by:
 - San Antonio, TX
 - Contra Costa County, CA
 - Somerville, MA
 - Berkeley, CA

Indicator	Weight	Rationale for Indicator
Density of Apartments and Condominiums ¹	50%	Residents living in multifamily buildings have less access to at-home charging. These "garage orphans" are a relatively large segment of potential electric vehicle adopters who are locked out of the market.
Density of Renters ¹	5%	As with garage orphans, renters have a lower likelihood to have access to at-home charging than owners. This means they need public charging solutions.
Density of Car Commuters ¹	5%	Areas with higher numbers of car commuters means have higher need for charging than areas with lower density of car commuters.
Density of Early Adopters ¹	20%	Electric vehicle chargers should be located in areas with more electric vehicles to help ensure utilization of the chargers.
Density of Existing EV Charger Access ²	20%	Areas with low public charging access should be higher scoring than areas with high publicly-accessible charging.

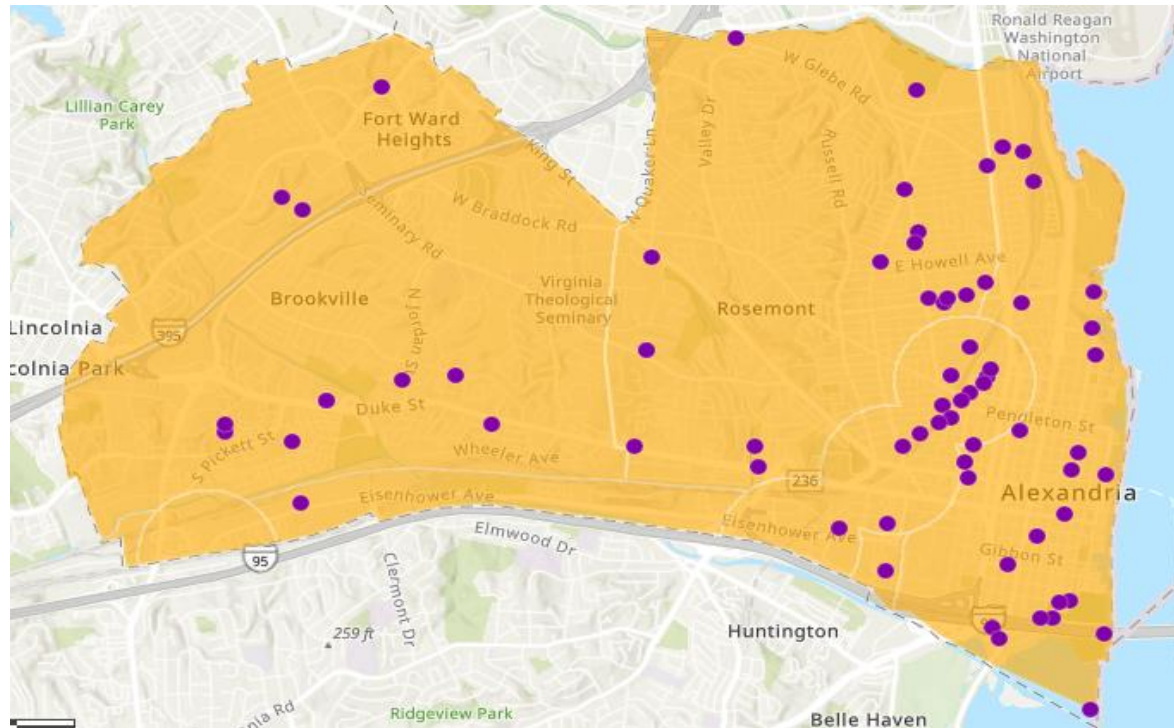
¹ US Census (2020) Explore Census Data <https://data.census.gov/cedsci/>
² US Department of Energy (2020) Alternative Fuel Data Center: Station Locator.

Fact sheet developed in support of the City of Alexandria by Cadmus Group, June 2020

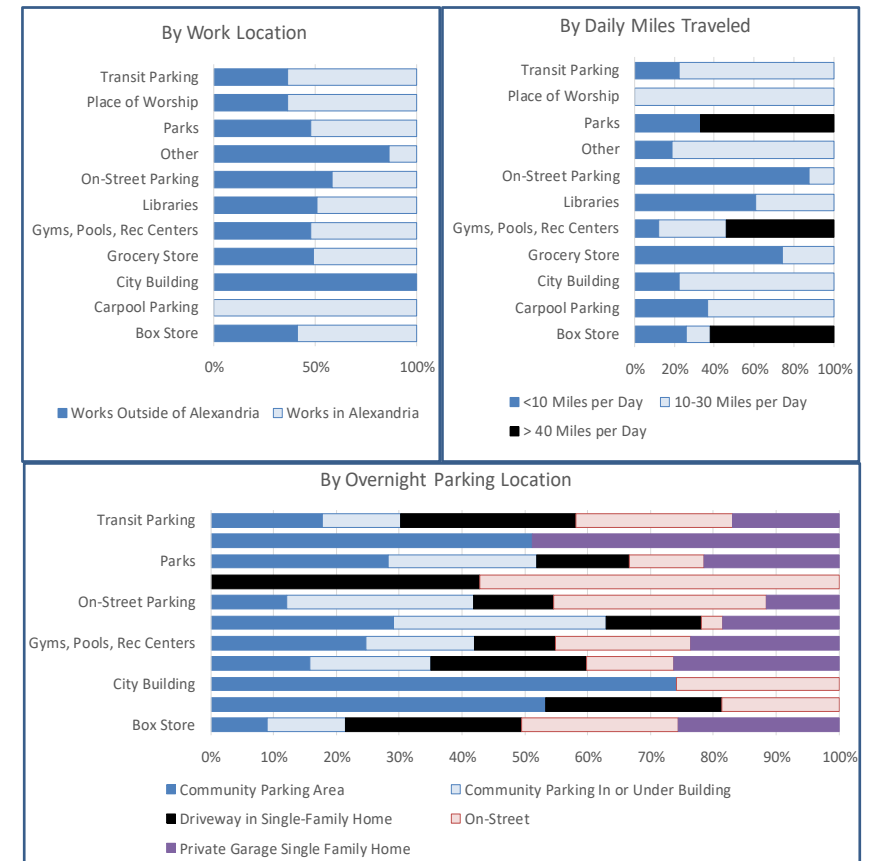
Density Factor	Rationale for Factor	Most Weighted Factor			All Weighted Equally
		Multifamily Dwellings	No Off-Street Parking	Charger Access	
Multifamily Dwellings^a	Residents of MFDs have less access to at-home charging. These "garage orphans" are a relatively large segment of potential electric vehicle adopters who are locked out of the market.	50%	10%	10%	17%
Renters^a	As with garage orphans, renters are less likely to have access to at-home charging than owners.	10%	10%	10%	17%
Car Commuters^a	Areas with more car commuters have a higher need for charging than areas with a lower density of car commuters.	10%	10%	10%	17%
Early Adopters^a	Electric vehicle chargers should be located in areas with more electric vehicles to help ensure charger use.	10%	10%	10%	17%
Existing Electric Vehicle Charger Access^b	Areas with low public charging access should be higher scoring than areas with high public charging access.	10%	10%	50%	17%
Homes with No Off-Street Parking Access^c	Areas of single-family homes with low driveway or alley access should be higher scoring than areas of single-family homes with high driveway or alley access.	10%	50%	10%	17%

^a U.S. Census Bureau 2020c; ^b US DOE Station Locator; ^c City of Alexandria 2020

Identifying Charging Location Opportunities

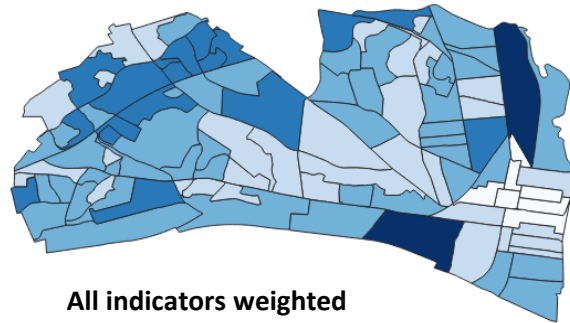


Results of survey question asking respondents to place a pin on desired charging location and a brief description of primary rationale for selecting that location.

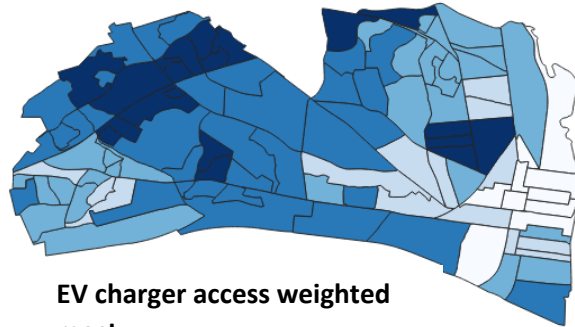


Results of survey question asking respondents about their preferred charging station location. Responses are disaggregated by three segments.

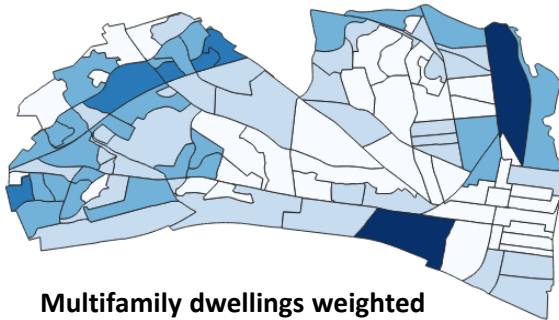
Identifying Charging Location Opportunities



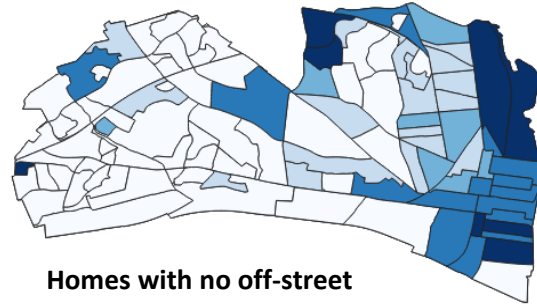
All indicators weighted equally



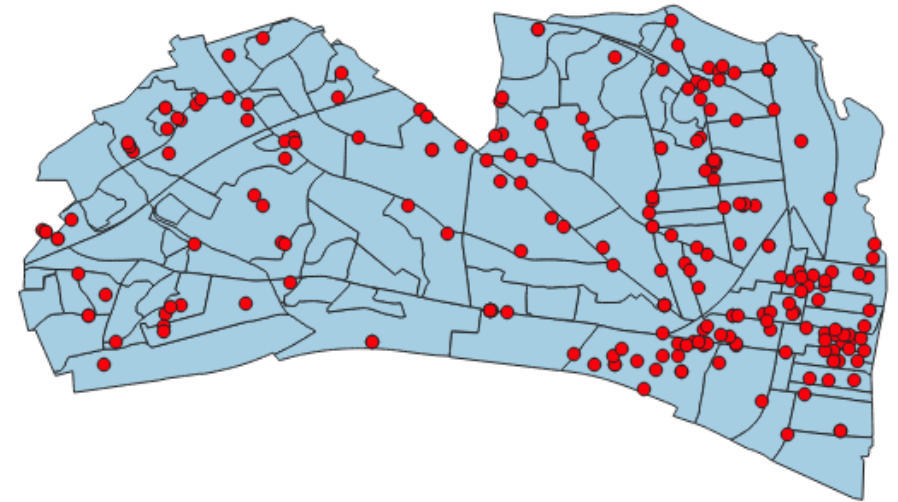
EV charger access weighted most



Multifamily dwellings weighted most



Homes with no off-street parking weighted most



Red points indicate sites of interest in Alexandria that could be considered for electric vehicle charging infrastructure.

Composite electric vehicle charging prioritization for Alexandria.



Opportunity B.5: Apply proven POW charging solutions

Lamppost or parking meter connected chargers work with Level 1 or Level 2 chargers and are particularly relevant for cases in which inefficient light bulbs were replaced with efficient light bulbs (so there is now excess capacity).

ROW/Public Space Charging Options

Curbside Level 2 chargers for residential and commercial areas can be installed either by the city or by residents, similar to the Berkeley, CA; Dundee, Scotland, and Seattle, WA





ROW/Public
Space
Charging
Options

Curbside DCFCs can be used, similar to the City of Sacramento who successfully partnered with EVgo to install a plaza of DCFCs along a city park that provide charging solutions to nearby residents.

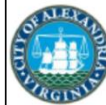
Opportunities to Expand Charging

Opportunity	Description
Sending a Strong Market Signal	
A-1	Promote Alexandria as an Electric Vehicle Capital City
A-2	Utilize innovative pilot programs to draw investment to the city
A-3	Establish near- and medium-term targets for public electric vehicle charging infrastructure
Prioritizing Solutions for Unmet Charging Demand	
B-1	Appoint an Electric Vehicle Navigator
B-2	Expand public and workplace charging solutions to provide additional options for MFD residents
B-3	Allocate city-owned parking as “EV designated” with the option for developing a charging station in the future
B-4	Adopt a policy of installing public Level 2 charging stations as residents request them
B-5	Apply proven ROW charging solutions
B-6	Create charging hubs
B-7	Develop dedicated DCFC station plazas for taxis, transportation network companies, and shared mobility services
B-8	Prioritize charging locations at grocery stores, parks, and box stores
B-9	Prioritize locations near highway off-ramps for DCFC stations
Enhancing Communications and Awareness	
C-1	Communicate electric vehicle charging requirements and processes clearly using the city website
C-2	Establish a process to benchmark progress
C-3	Lead from the front
C-4	Champion charging infrastructure by electrifying the city fleet
C-5	Build and maintain internal competencies
Strengthening Zoning, Codes, and Permitting	
D-1	Amend zoning ordinance to include charging stations as a permitted accessory use
D-2	Encourage EV charging in parking space requirements
D-3	Establish EV installation checklist
D-4	Adopt curbside management policies to prioritize EV charging
D-5	Revise Standard Conditions to increase minimum requirements
D-6	Adopt design criteria related to EV charging stations.
D-7	Consider appropriate standards for historic districts
D-8	Training for local officials
Advocacy in State Government and with Dominion Energy	
E-1	Advocate for strategies that will do most to accelerate electric vehicle adoption

Draft EVRS Available

<https://www.alexandriava.gov/tes/eco-city/info/default.aspx?id=109894>

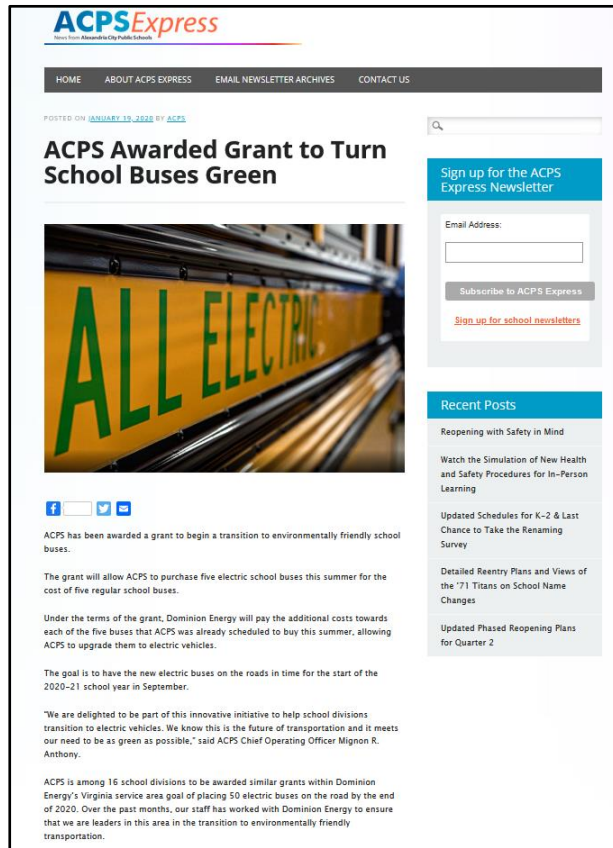
DRAFT Alexandria Electric Vehicle Infrastructure Readiness Strategy



Eco-CITY ALEXANDRIA
November 2020

Electric School Bus Pilot Program

Regulatory and Policy Advocacy




ACPS Express
News from Alexandria City Public Schools

HOME ABOUT ACPS EXPRESS EMAIL NEWSLETTER ARCHIVES CONTACT US

POSTED ON [JANUARY 13, 2020](#) BY [ACPS](#)

ACPS Awarded Grant to Turn School Buses Green



[f](#) [t](#) [w](#) [m](#)

ACPS has been awarded a grant to begin a transition to environmentally friendly school buses.

The grant will allow ACPS to purchase five electric school buses this summer for the cost of five regular school buses.

Under the terms of the grant, Dominion Energy will pay the additional costs towards each of the five buses that ACPS was already scheduled to buy this summer, allowing ACPS to upgrade them to electric vehicles.

The goal is to have the new electric buses on the roads in time for the start of the 2020-21 school year in September.

"We are delighted to be part of this innovative initiative to help school divisions transition to electric vehicles. We know this is the future of transportation and it meets our need to be as green as possible," said ACPS Chief Operating Officer Mignon R. Anthony.

ACPS is among 16 school divisions to be awarded similar grants within Dominion Energy's Virginia service area goal of placing 50 electric buses on the road by the end of 2020. Over the past months, our staff has worked with Dominion Energy to ensure that we are leaders in this area in the transition to environmentally friendly transportation.

Sign up for the ACPS Express Newsletter

Email Address:

Subscribe to ACPS Express

[Sign up for school newsletters](#)

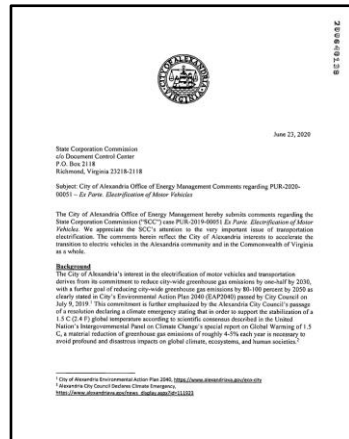
Recent Posts

- Reopening with Safety in Mind
- Watch the Simulation of New Health and Safety Procedures for In-Person Learning
- Updated Schedules for K-2 & Last Chance to Take the Renaming Survey
- Detailed Reentry Plans and Views of the '71 Titans on School Name Changes
- Updated Phased Reopening Plans for Quarter 2



Advocating for Transportation Electrification

Regulatory and Policy Advocacy



SCC PUR-2020-00051

Electrification of Motor Veh.

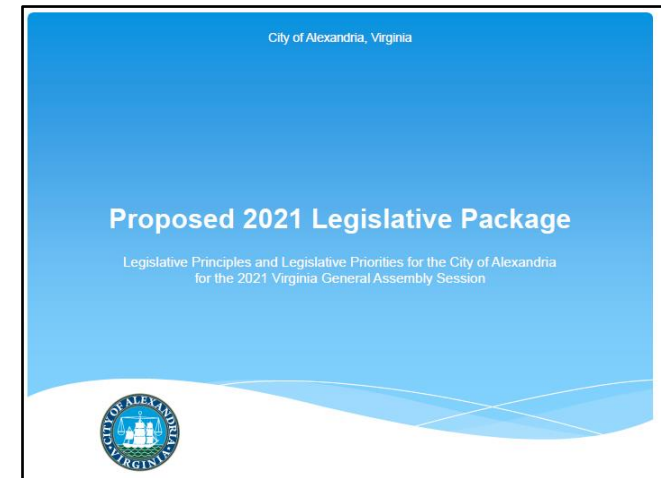
<https://www.scc.virginia.gov/DocketSearch#caseDetails/140702>



PJM Cities and Communities Coalition

<https://www.pjmccc.org>

FERC Order 2222



The City supports legislation or executive actions to reduce greenhouse gas emissions from transportation by improving fuel economy standards, accelerating the deployment of electric vehicles, and helping create a robust and equitable Transportation Climate Initiative for Virginia to join.

The City supports legislation that will further advance our efforts to combat climate change and promote clean energy, including:

- Legislation to support the electrification of school bus fleets by pursuing strategies led by local governments rather than those offered and controlled by the utilities;
- Legislation to adopt Advanced Clean Cars Program Standards and require vehicle manufacturers to sell more electric vehicles in Virginia;

Contact Me

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<https://www.linkedin.com/in/egeriicw/>

