# CHARGING AND FUELING INFRASTRUCTURE (CFI) PROGRAM

Maryland Clean Energy Center Round 1B Award & Round 2 Proposal

9/25/2024
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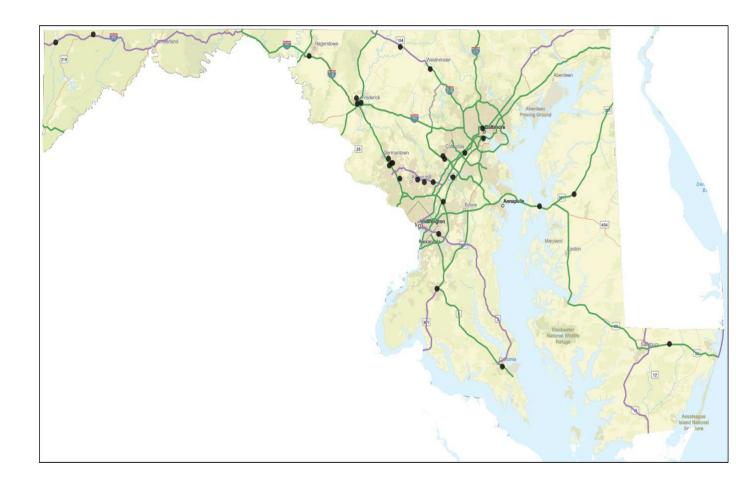




#### **MECIP 1B CORRIDOR SITES**

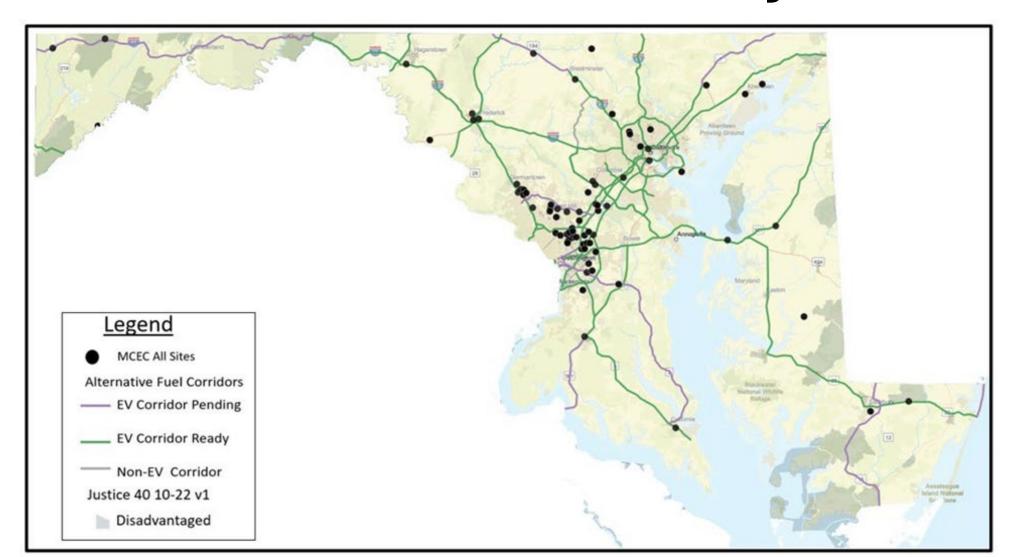
### **ROUND 1B AWARD:**

- \$33.4 Million Awarded for Corridor sites
- Installation of an additional 29 EV Corridor Compliant Sites statewide
- Sites include:
  - Car Dealerships
  - Fleet Use Sites
  - Urban Parking
  - Gas Stations
  - Libraries
  - Municipal Fleet/Public Safety Complexes
  - Tourism Sites





# Community & Corridor Sites (1A & 1B) 87 Total Sites Across Maryland



# Greenhouse Gas Reductions/Deliverables (Across both Community & Corridor sites)

•Fuel use by 9,119.6 barrels annually

•Greenhouse gas (GHGs) emissions by 2,894.6 metric tons annually

Other pollutants CO, NOx, PM10, PM2.5, VOC, and

Sox by 44,121.4 lb. annually

Annual Charging Calculator Output - Energy Use and Emissions Benefits

	Petroleum Use	GHGs	со	NOx	PM10	PM2.5	voc	SOx	<b>Electricity Dispensed</b>
Venue	(barrels)	(metric tons)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(kWh)
Level 2 Chargers									
Parking Lot									
Retail & Leisure	1,201.5	381.4	5,054.3	70.0	7.9	7.9	666.2	6.6	537,238
Education	951.6	302.0	4,002.9	55.5	6.3	6.3	527.6	5.2	425,486
Healthcare	42.7	13.5	179.5	2.5	0.3	0.3	23.7	0.2	19,084
Workplace	318.4	101.1	1,339.2	18.6	2.1	2.1	176.5	1.7	142,350
Multi-Unit Dwelling	4,457.0	1,414.7	18,749.1	259.8	29.4	29.4	2,471.4	24.4	1,992,900
Single-Unit Dwelling									
L2 Charger Total	6,971.2	2,212.7	29,325.1	406.4	46.1	46.1	3,865.4	38.1	3,117,058
DC Fast Chargers									
Parking Lot	56.4	17.9	237.4	3.3	0.4	0.4	31.3	0.3	25,229
Retail & Leisure	1,265.6	401.7	5,323.9	73.8	8.4	8.4	701.8	6.9	565,891
Education	246.6	78.3	1,037.6	14.4	1.6	1.6	136.8	1.3	110,286
Healthcare	36.9	11.7	155.1	2.1	0.2	0.2	20.4	0.2	16,489
Workplace	464.3	147.4	1,953.1	27.1	3.1	3.1	257.4	2.5	207,597
Multi-Unit Dwelling	78.6	24.9	330.6	4.6	0.5	0.5	43.6	0.4	35,140
Single-Unit Dwelling									
DC Fast Charger Total	2,148.4	681.9	9,037.6	125.3	14.2	14.2	1,191.3	11.7	960,632
Total	9119.6	2894.6	38362.6	531.7	60.3	60.3	5056.7	49.9	4077689.9



### **Installation Partnering Agencies**

	31				
Partner 1A	Partner 1B				
MCEC	MCEC				
Apexx Adams Transportation	BGE				
Baltimore County	City of Baltimore				
BGE	City of Rockville				
Citizen Energy	Francis Energy				
City of Havre de Grace	Frederick County				
City of Salisbury	Garrett County				
Francis Energy	Howard County				
Garrett County	Lightility				
Howard County	Montgomery County				
Lightility	Queen Anne's County				
Shell/Volta/Equilon					



### Workforce Development & Education/Outreach (1A & 1B)

Workforce Development Programming	Education & Outreach Programming
Apexx Adams Transportation	Apexx Adams Transportation
IBEW Local 24 JATC	Build America Center (BAC @ UMD)
	Citizen Energy
	MCEC

- 600 Apprentices and Journey Persons Electricians to be trained in EV installation
- Registered Apprenticeship Programming for BIOPIC Communities/Clean Energy/EV Installation
- Avanza Outreach to LIDAC Hispanic Communities
- Outreach and Education Programming for Clean Energy from MCEC



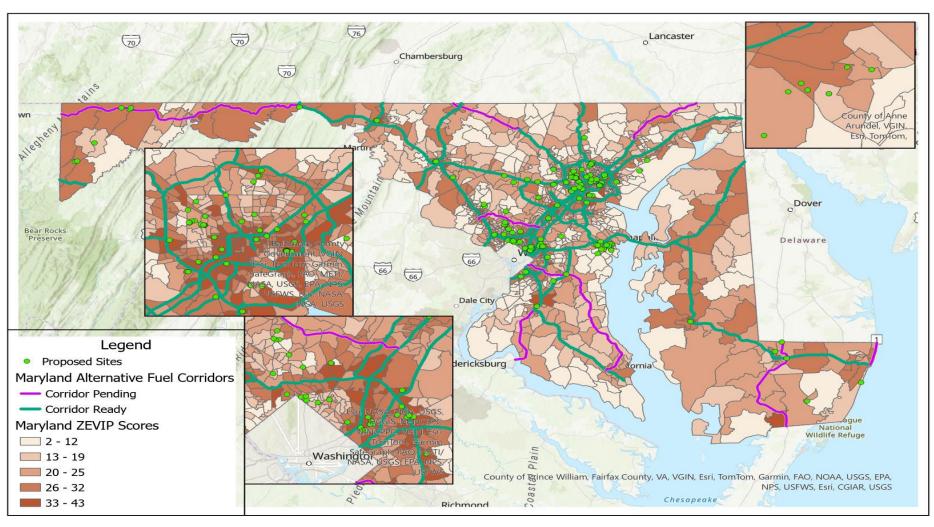
### **CFI Round 1A & 1B Totals**

1A Totals--Award \$15M, Cost Share/Match \$4.4M 58 Community Sites—Statewide

1B Totals—Award \$33.4M, Cost Share/Match \$6.6M 29 Community Sites—Statewide



# Charging and Fueling Infrastructure (CFI Round 2)

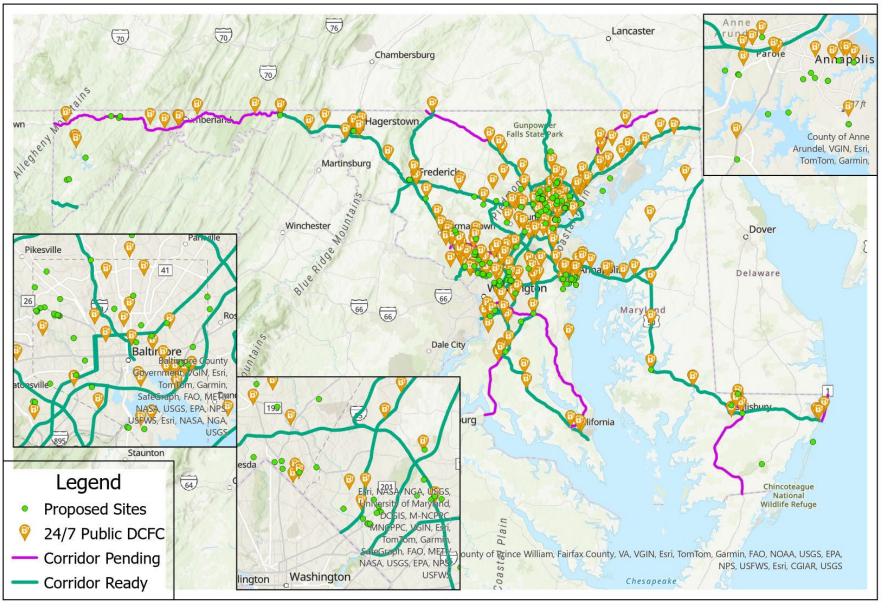




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# Round 2 Sites

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0 50 100

200 Miles

## COMMUNITY SITE AFLEET NUMBERS:

- Fuel use by 1442 barrels annually
- Greenhouse gas (GHGs) emissions by 500.50 short tons annually
- Other pollutants CO, NOx, PM10, PM2.5, VOC, and Sox by 5,407.6 lb. annually

#### **CORRIDOR SITE AFLEET NUMBERS:**

- Fuel use by 2093.5 barrels annually
- Greenhouse gas (GHGs) emissions by 726.7 short tons annually
- Other pollutants CO, NOx, PM10, PM2.5, VOC, and Sox by 7,850.6 lb. annually



Datus Issues IIIss	CUC-		NO.	D1440	D142 F	1/06	CO:: 1	l D!	EI
Petroleum Use	GHGs	СО	NOx	PM10	PM2.5	VOC		•	Fuel
(barrels)	(short tons)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(fuel unit)	Unit
162.5	56.4	538.0	10.4	1.4	1.2	57.4	0.9	70,393	kWh
198.6	68.9	657.5	12.8	1.7	1.5	70.1	1.1	86,036	kWh
65.0	22.6	215.2	4.2	0.6	0.5	22.9	0.4	28,157	kWh
									kWh
10.8	3.8	35.9	0.7	0.1	0.1	3.8	0.1	4,693	kWh
849.2	294.8	2,811.9	54.5	7.4	6.3	299.8	4.6	367,920	kWh
									kWh
1,286.1	446.4	4,258.4	82.6	11.2	9.5	454.0	7.0	557,199	kWh
31.2	10.8	103.3	2.0	0.3	0.2	11.0	0.2	13,515	kWh
124.8	43.3	413.2	8.0	1.1	0.9	44.0	0.7	54,062	kWh
									kWh
									kWh
									kWh
									kWh
									kWh
156.0	54.1	516.5	10.0	1.4	1.2	55.1	0.9	67,577	kWh
1,442.0	500.5	4,774.9	92.6	12.5	10.6	509.1	7.9	624,775.7	
	(barrels)  162.5 198.6 65.0  10.8 849.2  1,286.1  31.2 124.8	(barrels) (short tons)  162.5 56.4 198.6 68.9 65.0 22.6  10.8 3.8 849.2 294.8  1,286.1 446.4  31.2 10.8 124.8 43.3	(barrels)         (short tons)         (lb)           162.5         56.4         538.0           198.6         68.9         657.5           65.0         22.6         215.2           10.8         3.8         35.9           849.2         294.8         2,811.9           1,286.1         446.4         4,258.4           31.2         10.8         103.3           124.8         43.3         413.2           156.0         54.1         516.5	(barrels)         (short tons)         (lb)         (lb)           162.5         56.4         538.0         10.4           198.6         68.9         657.5         12.8           65.0         22.6         215.2         4.2           10.8         3.8         35.9         0.7           849.2         294.8         2,811.9         54.5           1,286.1         446.4         4,258.4         82.6           31.2         10.8         103.3         2.0           124.8         43.3         413.2         8.0	(barrels)         (short tons)         (lb)         (lb)         (lb)           162.5         56.4         538.0         10.4         1.4           198.6         68.9         657.5         12.8         1.7           65.0         22.6         215.2         4.2         0.6           10.8         3.8         35.9         0.7         0.1           849.2         294.8         2,811.9         54.5         7.4           1,286.1         446.4         4,258.4         82.6         11.2           31.2         10.8         103.3         2.0         0.3           124.8         43.3         413.2         8.0         1.1	(barrels)         (short tons)         (lb)         (lb)         (lb)         (lb)           162.5         56.4         538.0         10.4         1.4         1.2           198.6         68.9         657.5         12.8         1.7         1.5           65.0         22.6         215.2         4.2         0.6         0.5           10.8         3.8         35.9         0.7         0.1         0.1           849.2         294.8         2,811.9         54.5         7.4         6.3           1,286.1         446.4         4,258.4         82.6         11.2         9.5           31.2         10.8         103.3         2.0         0.3         0.2           124.8         43.3         413.2         8.0         1.1         0.9	(barrels)         (short tons)         (lb)         (lb)         (lb)         (lb)         (lb)           162.5         56.4         538.0         10.4         1.4         1.2         57.4           198.6         68.9         657.5         12.8         1.7         1.5         70.1           65.0         22.6         215.2         4.2         0.6         0.5         22.9           10.8         3.8         35.9         0.7         0.1         0.1         3.8           849.2         294.8         2,811.9         54.5         7.4         6.3         299.8           1,286.1         446.4         4,258.4         82.6         11.2         9.5         454.0           31.2         10.8         103.3         2.0         0.3         0.2         11.0           124.8         43.3         413.2         8.0         1.1         0.9         44.0	(barrels)         (short tons)         (lb)         (lb) <td>(barrels)         (short tons)         (lb)         (lb)</td>	(barrels)         (short tons)         (lb)         (lb)

	Petroleum Use	e GHGs	со	NOx	PM10	PM2.5	VOC	SOx	<b>Fuel Dispensed</b>	d Fu
Venue	(barrels)	(short tons)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)	(fuel unit)	) Un
Level 2 Chargers										
Parking Lot										kW
Retail & Leisure	31.8	11.0	105.2	2.0	0.3	0.2	11.2	0.2	13,766	5 kV
ducation	14.4	5.0	47.8	0.9	0.1	0.1	5.1	0.1	6,257	7 kV
Healthcare										kV
<i>W</i> orkplace										k۱
Multi-Unit Dwelling	222.4	77.2	736.4	14.3	1.9	1.6	78.5	1.2	96,360	) k\
Single-Unit Dwelling										k۱
2 Charger Total	268.6	93.2	889.5	17.2	2.3	2.0	94.8	1.5	116,383	3 k'
DC Fast Chargers										
Parking Lot	436.7	151.6	1,446.1	28.0	3.8	3.2	154.2	2.4	189,216	5 k\
Retail & Leisure	701.9	243.6	2,324.1	45.1	6.1	5.2	247.8	3.8	304,097	7 k'
Education	62.4	21.7	206.6	4.0	0.5	0.5	22.0	0.3	27,031	1 k
Healthcare										k
Workplace	623.9	216.6	2,065.9	40.1	5.4	4.6	220.2	3.4	270,309	9 k'
Multi-Unit Dwelling										k
Single-Unit Dwelling										k
DC Fast Charger Total	1,824.9	633.4	6,042.6	117.2	15.9	13.5	644.2	10.0	790,653	3 k
Total	2,093.5	726.7	6,932.1	134.4	18.2	15.5	739.0	11.4	907,035.4	4

# Partnering Agencies CFI Round 2

Partners	Partners	Partners	Workforce Development Partners/E & O Partners
MCEC	BGE	City of Hyattsville	Apexx Adams Transportation
City of New Carrollton	Citizen Energy	Francis Energy	Build America Center (BAC @ UMD)
Lightility	Voltpost/ZipCar	MD Department of Natural Resources	Bowie State University
City of Takoma Park	Equilon (Shell/Volta)	Montgomery County	IEC-Chesapeake
Town of Bladensburg	Town of Riverdale Park	Garrett County	
Howard County	Montgomery County	Washington County	



#### **CFI Round 2 Totals**

#### **Round 2 Totals:**

Community Application \$13.2M/\$4.1M Cost Share/Match

110 Community Sites

Corridor Application \$27.7M/\$6.9M Cost Share/Match

42 Corridor Sites

45% (68 of 152 total sites) of our COMMUNITY and CORRIDOR project sites reside in LMI/EJ/Disadvantaged Transportation Zones and increase economic opportunity



# Get In Touch

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