ELECTRIC VEHICLE PROGRAM



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ZEV Procurement Targets



Navy's ZEV Fleet Strategic Plan establishes annual ZEV goals that ramp to the 100% light-duty (2027) and 100% medium- and heavy-duty vehicle (2035) acquisition goals required by Executive Order 14057.

Navy ZEVs Progress Targets (ZEV number and percent ZEV acquisition)

Metric	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
ZEV % of LD Acquisitions	10%	18%	41%	61%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%
ZEV % of MD HD Acquisitions	1%	2%	3%	3%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Total ZEV Acquisition %	8%	12%	28%	41%	57%	73%	76%	80%	83%	87%	90%	93%	97%	100%

Navy EVSE Progress Targets (additional charging ports)

Metric	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
L1 Planned sites			_	-		No sigr	nificant L	1 EVSE p	lanned		_			
L2 Planned sites														
L3 Planned sites														

Concentration of EVSE installations

MIDLANT EV/PHEV Tracking

Metric	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
% COMP of LD Acquisitions	0%	8%	16%	25%	50%	75%	100%	100%	100%	100%	100%	100%	100%	100%
Light Vehicle Count	0	231	462	724	1448	2168	2890	2890	2890	2890	2890	2890	2890	2890
% COMP of MD HD Acquisitions	0.00%	0%	1%	3%	4%	7%	13%	25%	38%	50%	63%	75%	88%	100%
MD/HD Vehicle Counts	0	0	31	92	123	215	399	768	1168	1537	1936	2305	2704	3073
Total ZEV Acquisition %	0	4%	8%	14%	26%	40%	55%	61%	68%	74%	81%	87%	94%	100%
-	0	231	493	816	1571	2383	3289	3658	4058	4427	4826	5195	5594	5963
Light Duty Count Per PWD	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
CRANE	0	0	43	67	134	200	267							
COLNEC	0	5	16	25	51	76	101							
GLAKES	0	24	30	47	95	142	189							
LITCRE	0	8	23	37	73	110	146							
MAINE	0	2	20	32	64	96	128							
MECHAN	0	12	8	12	24	35	47							
NEWLON	0	8	27	42	84	125	167							
NEWPORT	0	33	33	32	64	95	127							
NORFOLK	0	97	148	231	461	692	922							
OCEANA	0	13	27	43	85	128	170							
PHILSO	0	16	16	26	51	77	102							
PORTSMOUTH	0	6	62	97	193	290	386							
YORK	0	7	22	35	69	104	138							
Medium/Heavy Duty Count Per PWD	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
CRANE	0	0	2	6	9	15	28	54	82	108	136	162	190	216
COLNEC	0	0	1	3	3	6	11	22	33	43	54	65	76	86
GLAKES	0	0	2	7	9	17	31	59	90	118	149	177	208	236
LITCRE	0	0	2	6	8	14	26	50	76	100	125	149	175	199
MAINE	0	0	2	5	7	11	21	41	62	82	103	122	143	163
MECHAN	0	0	1	2	3	4	8	16	24	32	40	48	56	64
NEWLON	0	0	2	5	6	11	20	39	59	78	98	116	136	155
NEWPORT	0	0	2	5	6	11	21	40	60	80	100	119	140	159
NORFOLK	0	0	9	26	34	60	111	213	323	425	536	638	748	850
OCEANA	0	0	2	7	9	16	29	56	85	112	141	168	197	224
PHILSO	0	0	1	2	3	5	10	19	29	39	49	58	68	77
PORTSMOUTH	0	0	4	12	16	28	53	102	154	203	256	305	357	406
VODV	0		2	7	10	UNCLÁŠ	SIFIED/	FOUO		110	150	170	200	220





FY 23 MIDLANT Electric Vehicle summary

<u>Sedan/Wagon</u>

- Ford FOCUS PHEV and BEV
- Hyundai IONIQ PHEV
- Nissan LEAF PHEV
- Pick-up

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- Ford F150 BEV
- Mini-Van (7 PAX)
- PACIFICA PHEV
- Panel Van
- Ford TRANSCON

PWD	In Place	In-Bound	Totals
COLNEC	5		5
GLAKES	12	12	24
LITCRE	8		8
MECHAN	2		2
NEWLON	11	1	12
NEWPORT	7	1	8
NNSY	26	7	33
NORFOLK	39	58	97
OCEANA	6	7	13
PHILSO	9	7	16
PNSY	5	1	6
YORK	3	4	7
	133	98	231

Naval Facilities Engineering Command

CHALLENGES



- Program (NAVY)
 - -FY22/23 ~\$8-10 Million
 - -FY24 ~\$100 Million
- GSA Availability of Zero Emission Vehicles
- Understanding the requirement
 - Inclusion of all Gov't vehicle on the installation
 - -Location, location, location

- Competing priorities with in PWDs
 - Bandwidth of execution of design and contract capabilities

- Programmatic rules
 - Use of OMN funds purchasing equip
 - MILCON authority/Work
 Classification

Moving Forward



- Development of requirements and execution strategy
 - Develop team to ensure planning, environmental, utilities, AQ, etc
 - Focus on vehicle requirement
- Develop long range plan vs short term execution
- Leadership engagement



Ford E-Transit RWD (BEV, SIN 34E)



Hyundai Kona (BEV, SIN 98E)

FY23 GSA Offering Highlights



Chrysler Pacifica (PHEV, SIN 20P)



Ford F150 Lightning (BEV, SIN 55E)



Chevy Silverado (BEV, SIN 57E)

Ford Escape (PHEV, SIN 98P) UNCLASSIFIED//FOUD



BACKUP INFO

Levels of EV Charging: Level 2



Level 2 (L2, AC) chargers are best suited for most fleet applications.



Level 2 – 208-240V AC power, one independent 40-amp circuit per port, J1772 or CCS connector



Range: 10-30 miles per hour

Examples: WPNSTA Seal Beach (L) and NAS Whidbey Island (R)





DON-230221-7MF7 FY23-24+ Electric Vehicle Charging Station Requirements due 02 JUN



• Background:

EOs 14008 and 14057 establish requirements for transitioning the federal non-tactical vehicle (NTV) fleet to a zero-emission fleet. All light-duty (LD) NTV procurements must be zero emission vehicles (ZEVs) by fiscal year (FY) 2027, and all medium- and heavy-duty NTV procurements must be ZEVs by FY 2035. These requirements align with automotive industry trends towards electric vehicles and away from internal-combustion engine vehicles. Navy is required to deploy charging infrastructure, otherwise known as electric vehicle supply equipment (EVSE), that allows for maximizing procurement and deployment of ZEVs.

• Deliverable:

- Complete the "FY23-24+ EV Charging Req" worksheet within the "FY23-24+ Electric Vehicle Charging Station Requirements" spreadsheet for applicable installation, denoting points of contact, site by site charging requirements, and project information for funding consideration.
- CNIC has been programmed significant O&MN funding for installing additional EV charging stations to support Navy NTV fleet electrification (\$60MM over FYDP). Additionally, numerous other funding sources are also available to support installation of charging infrastructure. This tasker is intended to identify ZEV charging requirements, initiate project planning for associated electric vehicle supply equipment (EVSE), and develop a pipeline of EVSE design/construction projects for FY23 and FY24 funding obligation. Considering these EO requirements and funding realignments, NAVFAC commands must make progress on planning and designing for the required infrastructure in preparation for increasingly electrified non-tactical vehicles.

• EVSE Project Planning Guidance:

- Requirements gathering should be collaborative, inclusive, and comprehensive, engaging stakeholders: transportation, utilities, energy, real estate, and vehicle end users. Full stakeholder participation ensures future EVSE funding can be optimally allocated to enable electrification of the NTV fleet.
- Planning, design, and construction for EVSE should be included within the scope of upcoming construction/energy projects, or as standalone projects, as appropriate. NAVFAC is focused primarily on installing Level 2 charging stations to support the light-duty NTV fleet.
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Stakeholder Roles in Project Development



When planning for EVSE projects, a variety of stakeholders need to be engaged throughout the process for the following content areas.

Facility Requirements (PW5)

- Parking locations and capacity at facility
- Name of parking locations
- Whether the EVSE parking locations are flexible or not
- How much parking is at or near an outlet Ownership of EVSE sited lots
- Maps of parking potential parking locations
- Permitting requirements

Transportation Requirements (PW7)

- Identify vehicles for replacement with ZEVs
- Identify the number and type of necessary EVSE and preferred locations for installation at facility
- Total light duty vehicles at parking location
- Number of ZEVs planned at each parking location

Refer to Federal Energy Management Program (FEMP) <u>EVSE</u> <u>Installation Planning Form</u> for further information on site inquiry.

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Electrical Requirements (PW6 & PW8)

- Design the installation of EVSEs including electrical upgrades
- Service panel & transformer rating, peak load, and location
- Distance of parking spaces to service panel & transformer
- Facility load management or demand meter
- Number of unused outlets that could be used for EVSE
- Availability of an electrician

Facility Engineering and Design (FEAD)

- Conceptual project design and scope of work
- Project requirements for proposal
- Project design & construction

FY24 Midlant EVCF Plan



Installation	Project Description	Number of Sites	Site Name(s)	Proposed L2 Ports	Proposed L3 Ports	Cost
JNTEXPBASE LITTLE CREEK FS VA	2 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	B3525	2	0	\$ 40,000
JNTEXPBASE LITTLE CREEK FS VA	4 Proposed L2 Ports and 0 Proposed L3 Ports at 2 Sites	2	B3661, B3165	4	0	\$ 80,000
NAVAL STATION NEWPORT RI	5 Proposed L2 Ports and 0 Proposed L3 Ports at 2 Sites	2	Building 1CC, Building A63CC	5	0	\$ 250,000
NAVAL SUPPORT ACTIVITY CRANE	72 Proposed L2 Ports and 3 Proposed L3 Ports at 1 Site	1	B56 PWD B2517 PWD	64	8	\$ 3,500,000
NAVSTA NORFOLK VA	28 Proposed L2 Ports and 0 Proposed L3 Ports at 5 Sites	5	SP-312, X-132, W-143, R-52, X-132 Parking lot	28	0	\$ 560,000
NAVSTA NORFOLK VA	104 Proposed L2 Ports and 6 Proposed L3 Ports at 1 Site	1	A-80/A-81	104	6	\$ 2,530,000
NAVSTA NORFOLK VA	14 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	SP-64	14	0	\$ 280,000
NAVSTA NORFOLK VA	6 Proposed L2 Ports and 15 Proposed L3 Ports at 1 Site	1	LP-20	6	15	\$ 1,245,000
NAVSTA NORFOLK VA	4 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	N-26	4	0	\$ 80,000
NAVSTA NORFOLK VA	28 Proposed L2 Ports and 3 Proposed L3 Ports at 1 Site	1	CEP-200	28	3	\$ 785,000
NAVSTA NORFOLK VA	20 Proposed L2 Ports and 6 Proposed L3 Ports at 1 Site	1	LF-18	20	6	\$ 520,000
NAVSUPPACT HAMPTON ROADS VA	16 Proposed L2 Ports and 0 Proposed L3 Ports at 8 Sites	8	EV ARC 16, EV ARC 17, EV ARC 18, EV ARC 19, EV ARC 20, EV ARC 21, EV ARC 22, EV ARC 23	16	0	\$ 544,000
NAVSUPPACT MECHANICSBURG PA	2 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	B955 USARC/ B965 OMS	2	0	\$ 40,000
NAVSUPPACT MECHANICSBURG PA	24 Proposed L2 Ports and 0 Proposed L3 Ports at 4 Sites	4	B305 South, B305 East, B305 west, Within Bldg. Trans Work area	24	0	\$ 480,000
NAVSUPPACT MECHANICSBURG PA	4 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	B407, B408, B410 Parking Hub	4	0	\$ 80,000
NAVSUPPACT MECHANICSBURG PA	6 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	B311 East	6	0	\$ 120,000
NAVSUPPACT MECHANICSBURG PA	4 Proposed L2 Ports and 0 Proposed L3 Ports at 1 Site	1	B955 ARMY	4	0	\$ 80,000
NAVSUPPACT NORFOLK NSY	9 Proposed L2 Ports and 0 Proposed L3 Ports at 4 Sites	4	Building 59, Building 1500, Building 1580, Building 1618	9	0	\$ 160,000
NRC HARRISBURG PA	6 Proposed L2 Ports and 0 Proposed L3 Ports at 2 Sites	2	B9 Staff Parking, B9 General Parking	6	0	\$ 120,000
PWD PENNSYLVANIA PA	0 Proposed L2 Ports and 0 Proposed L3 Ports at 6 Sites	6	Pennsylvania B1, B567, B643, B712, Pennsylvania B10, B24	0	0	\$ 750,000
						\$ 12,244,000