

EVSE Best Practices: **Agency Wide & Site Level**

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Agenda

- 1 EVSE Accelerator Overview**
- 2 Who We Talked to**
- 3 What We Learned**
- 4 Opportunities for Accelerating EVSE Deployment**

What is the EVSE Accelerator?



GOALS

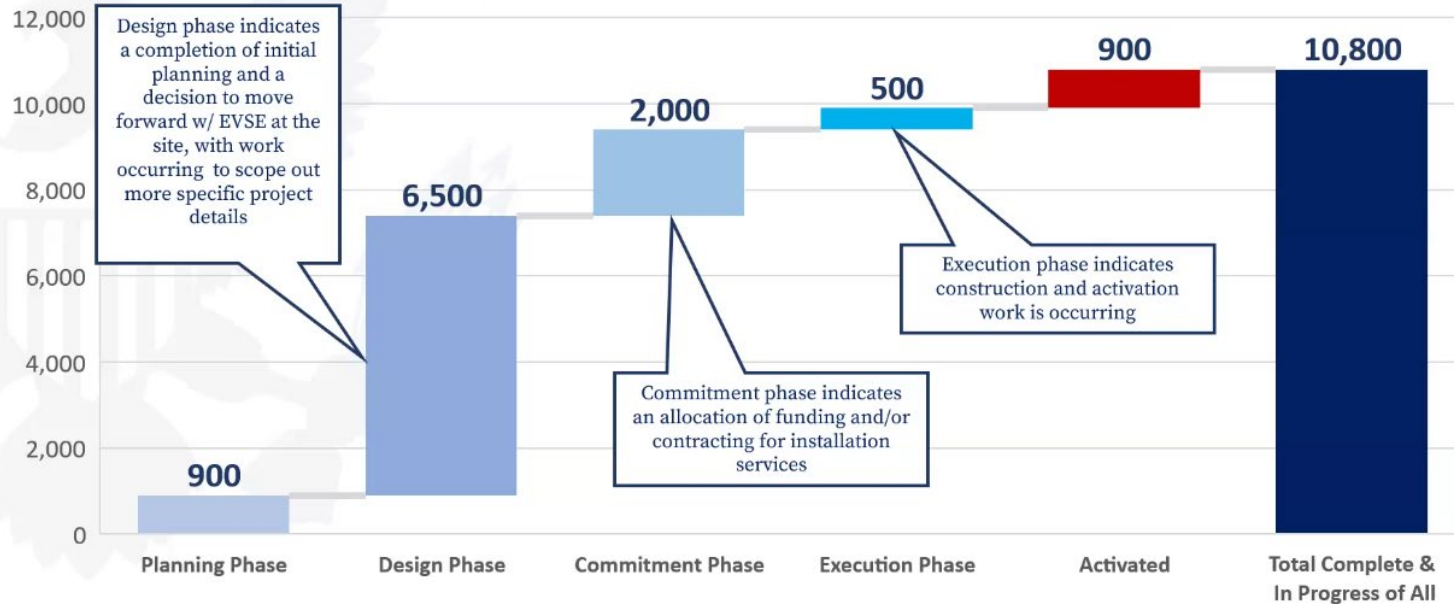
What **works and what does not work** in various EVSE deployment scenarios

Identify and share replicable **successful EVSE deployment pathways** to **accelerate Federal EVSE deployment**

- Initiative led by CEQ and supported by FEMP and GSA
- Listen to agency EVSE deployment experiences to:
 - Catalog the varied pathways to EVSE deployment across government
 - Identify barriers to adoption
 - Document pathways for successful EVSE deployment projects

Why the EVSE Accelerator?

Approximate Ports per Phase in FY23 (as of June 30)



What is the end product of this effort?

RESULTS

Translate and amplify lessons learned into **actionable recommendations to accelerate and simplify EVSE deployment at Federal fleet sites**

Use findings to **refine and expand ZEV Ready Process**

- Help agencies overcome barriers limiting action
- Support program management offices transitioning from planning to execution
- Create ZEV Ready decision tree recommendations that amplify and broadcast the various pathways for successful EVSE deployment projects
- Develop tools to help agencies assess and design solutions at their sites

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Who did we talk to?



Cincinnati VA Medical Center
Boston VA Medical Center



U.S. Coast Guard Base Portsmouth



Kennedy Space Center
Goddard Space Flight Center/Wallops Flight Facility



Fort Moore, GA



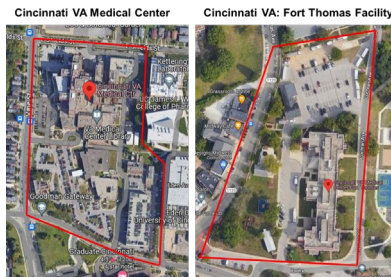
FLETC Glynco, GA
FLETC Artesia, NM



Veterans Affairs sites

Cincinnati VA Medical Center

Installed **20 ports at 3 locations** on Cincinnati campus and **18 ports at parking lot** at Fort Thomas facility



Used A&E firm for design and statement of work and awarded facility IDIQ contract

Timeframe was slightly over 2.5 years

Largest challenge is electrifying 75 vehicles at their Community Based Outpatient Clinics, which are commercially-leased

Boston VA Medical Center

Partnered with local electric utility to install 5 dual-port charging stations at two buildings at Brockton, MA facility



Existing facility IDIQ contracts expediate EVSE deployment

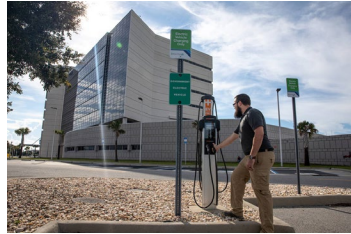
Collaboration between agencies and GSA Fleet is important



NASA sites

Kennedy Space Center

Florida Power & Light funded the purchase and installation of 28 dual-port charging stations



Currently deploying 63 additional charging ports (internal NASA funding)

Focus on completing site location assessments and EVSE deployment

Goddard and Wallops

Successful process for using **the GSA PBS EVSE IDIQ** for installation services



Contract awarded in July; will complete by end of 2023

NASA is “not in the EVSE deployment and maintenance business”; delegating EVSE installation to contractors with expertise



DHS FLETC sites

FLETC Glynco, GA

Adding 17 DC Fast charging stations and solar chargers to existing 15 single port Level 2 chargers

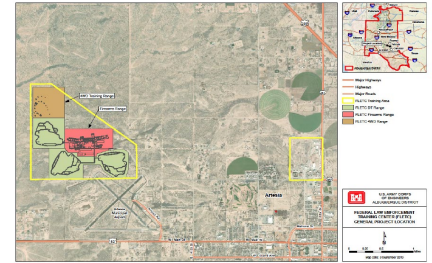


Working with Georgia Power for service upgrades (transformers, distribution, subpanels) to support DC Fast chargers

Keys to success were coordination with the facilities division and working with the utility early in the process

FLETC Artesia, NM

Installing 9 DC Fast chargers and solar chargers; originally designed to support buses



Waiting on transformers from small electric co-op

Learned that it is crucial to balance locating EVSE to best serve the transportation mission with the costs of installation



U.S. Coast Guard

U.S. Coast Guard Base Portsmouth

Installed 7 dual-port Level 2 charging stations in a single cluster near a parking lot in February 2021



Fleet electrification is a team sport; need to incorporate right stakeholders at right time

“Saturating” sites before adding new charging stations



U.S. Army

Fort Moore, GA

Installing 63 dual-port Level 2 stations and 34 solar chargers across the installation

Initially used utility privatization contract; due to limited transformer availability, now working with Georgia Power using Areawide Service Contract

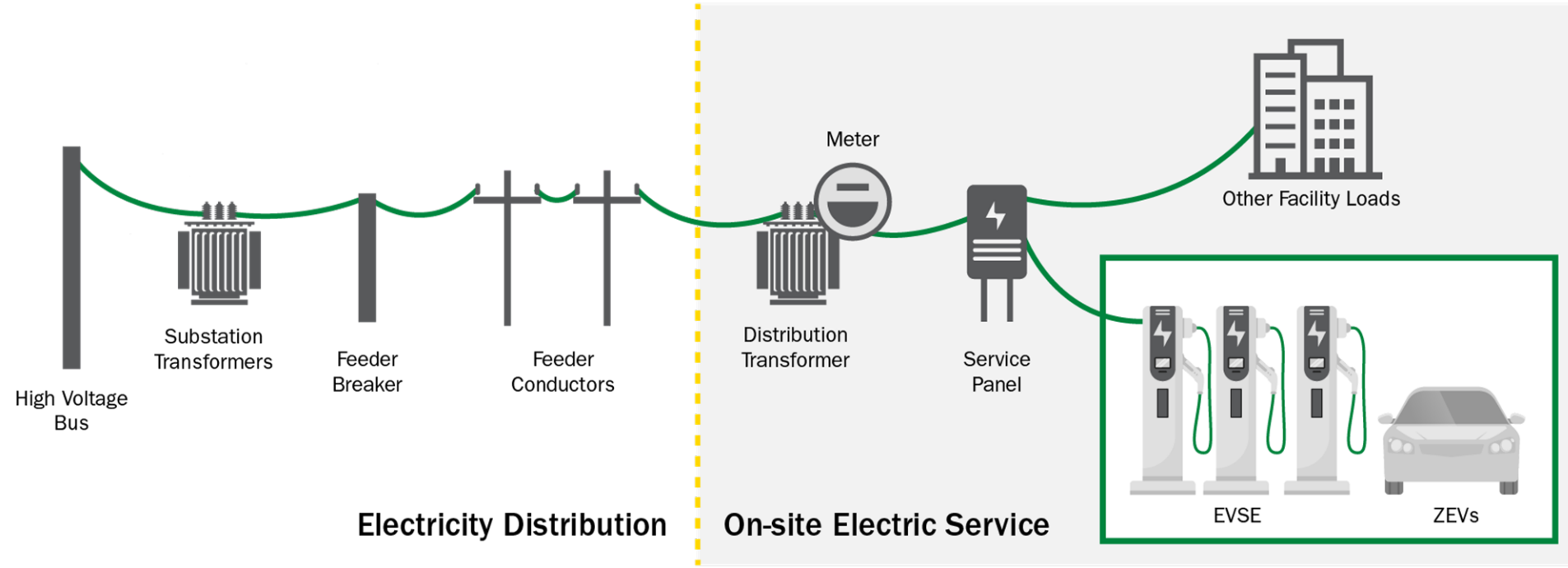
EVSE deployed as **standardized sets** of 5 dual-port stations on 100 kVA transformer



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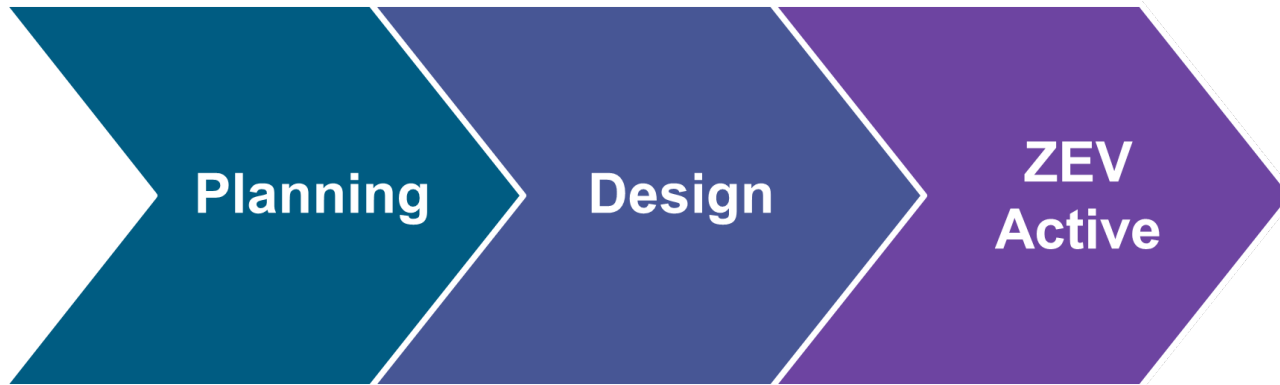
Site-level fleet electrification doesn't just happen



We mapped our findings to the ZEV Ready process








The ZEV Ready Solution

Framework to simplify and guide fleets through the **process** to electrify each fleet location








ZEV Ready simplifies site-level fleet electrification

Planning

Step 1 Identify and coordinate team  Team Ready	Step 2 Review training materials  Team Ready	Step 3 Review requirements, goals, and data  Commitment Ready	Step 4 Align headquarters strategy with site planning  Commitment Ready
Step 5 Identify ZEV opportunities  Vehicle Ready	Step 6 Identify EVSE opportunities  Charging Ready	Step 7 Coordinate site financial planning with headquarters  Commitment Ready	

Design

Step 8 Engage with key electrification stakeholders at site  Team Ready	Step 9 Coordinate with local utility service  Charging Ready	Step 10 Complete site assessment and design EVSE  Charging Ready	Step 11 Identify EVSE at non-agency locations  Charging Ready
Step 12 Work with leadership to secure EVSE funding  Commitment Ready			

ZEV Active

Step 13 Acquire ZEVs and EVSE  ZEV Ready	Step 14 Install and activate EVSE  ZEV Ready	Step 15 Support drivers in using ZEVs and EVSE  ZEV Ready
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Step 1: Identify and Coordinate Team

Step 1

Identify and
coordinate
team



Team Ready

Timing. Key to success is establishing site teams early

- Site teams meet regularly to maintain progress and focus

Fleet and facility coordination. Fleets coordinate EVSE needs with facilities personnel that integrate those EVSE loads into facility operations

- How do sites align impacts on facility operations and costs with vehicle transportation mission and requirements?

Other stakeholder coordination. Important to coordinate with master planning, finance, and procurement functions



Step 2: Review Training Materials

Step 2

Review training materials



Team Ready

Outreach. Many site personnel are unaware of electrification support and resources available from DOE FEMP and GSA

Training offerings. Limited training available on contracting mechanisms

Step 4: Align Headquarters Strategy with Site Planning

Step 4

Align
headquarters
strategy with
site planning



Commitment Ready

Headquarters oversight. Many agencies have limited visibility of the ZEV and EVSE deployment status at each site location

Headquarters oversight. Agencies program management offices succeed by balancing electrification oversight with providing autonomy to sites to tailor solutions to their specific requirements

Coordinate with fleet conversions. Sites that are converting from agency-owned vehicles to GSA-leasing provide a great electrification opportunity



Steps 5 & 6: Identify ZEV and EVSE Opportunities

Step 5

Identify ZEV opportunities



Vehicle Ready

ZEV selection policies. Some agencies or sites establish ZEV acquisition policies that limit fleet electrification efforts

Site assessments. Agencies accelerate EVSE deployment by dispersing funds to centers that are “contract ready”, and have already completed site assessments

Step 6

Identify EVSE opportunities



Charging Ready

Flexibility. Longer-term EVSE plans at successful programs allow for flexibility for changes in mission and fleet size

EV/EVSE ratios. Prescriptive EV to EVSE ratios established by headquarters often lead to non-optimal EVSE designs

Step 7: Coordinate Site Financial Planning

Step 7

Coordinate site financial planning with headquarters



Commitment Ready

Budgeting. Agencies should budget EVSE for two years after the current FY to ensure reasonable funding availability

Cost estimates. Sites can accelerate EVSE deployment by developing independent government estimates for EVSE installation as early as possible

Cost management. Some headquarters have established overall agency policies to manage fleet electrification costs

Step 9: Coordinate with Local Utility Service

Step 9

Coordinate with local utility service



Charging Ready

Site assessments. At many successful EVSE deployments, utilities worked with the site during initial site assessments to evaluate potential electrical service impacts in designs

Contracting. Sites have successfully incorporated EVSE into utility privatization contracts. Many utilities have programs to support fleet electrification opportunities



Step 10: Complete Site Assessment and Design EVSE

Step 10

Complete site
assessment
and design
EVSE



Charging Ready

Standardized designs. Some sites have created standardized EVSE designs that can be replicated across the facility

Learning and Knowledge. EVSE site assessment and design efforts have created a wide range of lessons learned and institutional knowledge

Personnel. Using certified electricians and facility personnel familiar with site operations is crucial to successful EVSE installation efforts



Step 11: Identify EVSE at Non-Agency Locations

Step 11

Identify EVSE at non-agency locations



Charging Ready

Public charging availability. Sites typically are not evaluating the availability of publicly available charging stations in designing fleet electrification solutions

Commercially leased facilities. Issues installing charging stations at commercially leased facilities, where the EVSE must be incorporated into the lease terms

Step 12: Secure EVSE Funding with Agency Leadership

Step 12

Work with leadership to secure EVSE funding



Commitment Ready

Timing. Fiscal year timing of the availability and obligation of EVSE funding can impact contracting and administration

Cost estimates. Cost estimates often change over short periods of time. EVSE cost estimates should be revised periodically during the process

Coordination. Headquarters can improve allocation of funding for fleet electrification by collaborating with sites

Step 13: Acquire ZEVs and EVSE

Step 13

Acquire ZEVs and EVSE



ZEV Ready

Contracting alternatives. Many sites are unaware of contracting alternatives available for EVSE installation (e.g., GSA PBS EVSE IDIQ)

Contracting coordination. Important to work with contracting officers to ensure non-standard and specific requirements are supported by FAR provisions

ZEV ordering. Coordination with GSA is critical to ensure that vehicles ordered and received are aligned with charging infrastructure at the fleet location

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Lessons learned to actionable recommendations

How can the Federal fleet catalog and share EVSE design and installation knowledge?

Knowledge Capture and Sharing



How can agency headquarters translate strategic planning into execution at the site level?

Headquarters Program Management



How can FEMP refine and expand the ZEV Ready Process to accelerate EVSE deployment?

ZEV Ready Process Extensions



How can CEQ, FEMP, and GSA provide support and tools to accelerate EVSE deployment?

Collaboration and Support





Knowledge capture and sharing

How can the Federal fleet catalog and share EVSE design and installation knowledge?

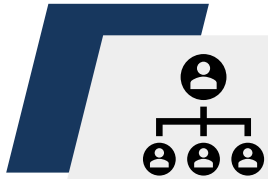
Knowledge Capture and Sharing



Capture & Share EVSE Deployment Knowledge

- Establish **Center of Excellence** to capture/share EVSE deployment knowledge
- Capture and distribute **standardized EVSE designs**
- Develop an EVSE installation services **contracting knowledge center**
- **Improve and expand outreach**, including facilities and other non-fleet personnel





Headquarters program management

How can agency headquarters translate strategic planning into execution at the site level?

Headquarters
Program
Management



Establish Program Management Offices (PMOs)

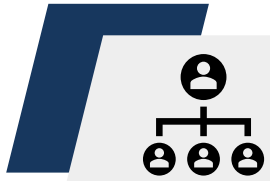
- Support agencies in establishing headquarters PMOs
- Pilot an agency in standing up a PMO
- Create resources to support smaller agencies in fleet electrification oversight

Tools to Improve EVSE Deployment Oversight

- Improve visibility and management of site-level EVSE deployment efforts
- Develop tool to assist agencies in developing five-year funding plans
- Fast-track simplified site assessments and cost estimates across sites

Headquarters Best Practices

- Focus on quickly establishing electrification teams at each of their sites
- Consider establishing national EVSE installation contracts



Headquarters program management

EVSE Accelerator Findings

Effective collaboration and coordination between agency headquarters and sites is key to overall fleet electrification success

How can agency headquarters translate strategic planning into execution at the site level?

Headquarters Program Management



How can we help agency headquarters and sites improve:



Knowledge and Training

Ability to share available resources and training and communicate agency best practices



Community

Active engagement with sites in fleet electrification, understanding successes and challenges



Oversight

Improve visibility and management of site-level EVSE deployment efforts



ZEV Ready process extensions

How can FEMP refine and expand the ZEV Ready Process to accelerate EVSE deployment?

ZEV Ready Process Extensions



Adding New Sub-processes to the ZEV Ready Framework

- Refine and expand stakeholder teams in ZEV Ready
- Expand training offerings in ZEV Ready framework
- Modify ZEV Ready to support pathways for contracting alternatives
- Develop sub-pathways for integrating fleet electrification into VAM studies
- Incorporate case studies into ZEV Ready framework
- Develop sub-process to support sites with EVSE in commercial leases
- Expand sub-processes to support utility coordination

Tools to Improve EVSE Deployment Oversight

- Create tool to use fleet data to simplify identification and tracking of ZEV opportunities and EVSE “hot spots”
- Automate ZEV Ready tracking to allow agencies to actively manage sites and assign actions to stakeholders



Collaboration and support

How can CEQ, FEMP, and GSA provide support and tools to accelerate EVSE deployment?

Collaboration and Support



- **Streamline collaboration** between agencies, FEMP and GSA, and contracting to align fleet electrification goals
- **Opportunities to reduce time** from planning to activation
- **Leverage telematics and/or GIS data** to support fleet electrification decision-making
- **Benchmarking** and reducing electrification costs
- **Scaling contracting** for EVSE installation
- Create proactive analyses to identify **contracting opportunities**
- Identify opportunities to **use public charging stations**

Questions

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Thank you!