

How is the V2G infrastructure controlled?

Introduction

A V2G system is comprised of plug-in electric vehicles (PEVs), bi-directional charging stations, and software controls that enable an installation to compete in utility ancillary services markets. Customized for each base, the OB-EVI provides the communication and software controls needed for all aspects of V2G.

Goal

Meet utility system operator's charge and discharge requirements

- Fulfill base fleet mission requirements
- Maximize ancillary services revenues
- Minimize non-conformance penalties



Performance Reporting
OB-EVI includes a dashboard and detailed reports that provide system status, V2G participation and financial performance information.

On Base-Electric Vehicle Infrastructure (OB-EVI)

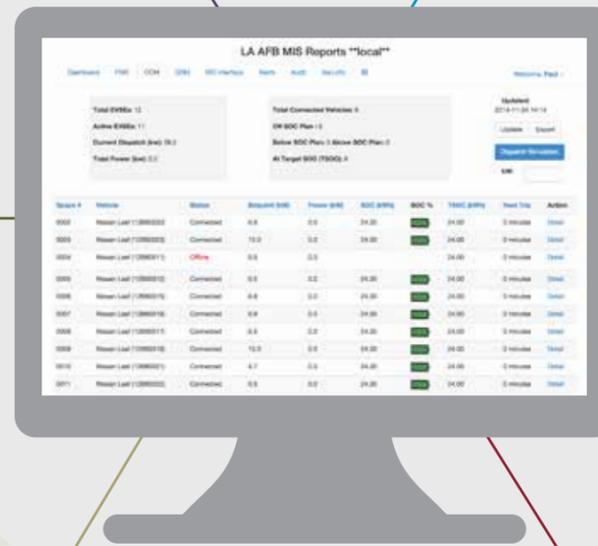
PEV Fleet Reservations
Base personnel reserve cars/trucks in advance of use. OB-EVI ensures V2G participation does not prevent the fleet from meeting mission requirements.



Vehicle to Grid
OB-EVI supplies power stored in vehicle batteries to the grid according to the award signal.



Power Sent from Battery to Grid



Charge Management
OB-EVI develops an optimal charge schedule to ensure mission readiness and maximize financial benefit of V2G participation. OB-EVI controls EVSE charge/discharge according to schedule.



Charge Vehicle Battery Discharge Vehicle Battery

Managing fleets & participation in the ancillary services market

Award Signal
Utility system operator responds to submitted bid with award signal.



Bid Submission
OB-EVI prepares a detailed next day bid using planned vehicle availability information and submits to utility system operator.

